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Address.

A PHYSICIAN'S IMPRESSIONS OF FLORIDA.*

By W. L. Johnson, M.D., Uxbridge, Mass.

If any apology is necessary in presenting such a subject at the present time, it is here about to be made. For over thirty years I have listened to the annual orations delivered before this Society and have heard various medical and surgical subjects discussed by the orators of the day. They have all brought some real contributions to medical literature, and in the sum total have traversed the highway of increasing medical lore with constantly progressive steps.

To this creditable progress I can contribute nothing, for I have wandered far from strictly medical fields, and am laden with the products gathered therein. I am simply hopeful that a new subject, presented by one who is an enthusiast on Florida, will not be uninteresting to you, and may perchance amuse you enough to be an excuse for so great a variation from the expected routine of a medical orator. I want it understood, lest you should take anything I may say as absolute law, that these are strictly my own observations, and I have not consulted any books on Florida to confirm or refute any conclusions to which I shall arrive. Consequently they may be narrow in some respects, are sure to be local, and undoubtedly will be disputed by the true Southerner. With these limitations in view, I will plunge into the midst of my subject.

What is the great charm of Florida? Nothing else than its wonderful climate. Nowhere else is the sky so blue, nowhere else is the air so clear, the breezes so soft; nowhere else is there so much oxygen in the air; nowhere else do the cares and perplexities of life fade into nothingness, like the fleecy clouds that sink into the azure depths of the vast unknown; nowhere else does one get that delicious intoxication that has no reaction, that brings to the old and weary the dreams and enthusiasm of youth.

Nowhere else can we get the full significance of the poet's words:

> "Now the heart is so full that a drop o'erfills it;
> We are happy now because God wills it.
> We can shut our eyes, but we cannot help knowing
> That skies are clear and grass is growing."

Lowell says: "What is so rare as a day in June?" Dr. Clark has well answered: "A hundred and twenty days in Florida."

Picture to yourself the most delightful day that New England ever offered, when "to simply live is a sheer delight," and you have a sample of Florida's daily winter weather. Does it not rain? Oh, yes, but we all like rain; but in New England it rains and takes two weeks to clear off, after the rain stops! The "leaden skies" of the poet, so much in evidence the past month, are unknown to Florida. The storm over, the sun appears at once, to make the earth rejoice and the hearts of men glad. Rightly is Florida called the land of sunshine. The editor of the

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* Delivered before the Worcester District Medical Society and the Thurber Medical Association.

St. Petersburg Times gives his paper away every day the sun does not shine. The winter I was there I did not get but one free copy, and last winter he boasts of not having once been called upon for free distribution. Imagine one of the Worcester papers trying to do business on this basis. It was a prim and cultured maiden who said that Boston was her idea of Heaven. To me the Elysian Fields can have no brighter charm than can be seen in Florida today.

How shall we reach this delightful clime? Surely, the best way is by sea. The comfortable ships of the Mallory Line, starting from New York and landing at Key West, leave nothing to be desired. By train there is so much absolutely desolate, uninviting land to ride over, that one feels weary even to think of it. By boat there is a charm from the moment we leave the harbor in New York. The great cakes of ice that bump into the ship as it ploughs along are merely a reminder of what we are leaving behind in the warm and comfortable cabin. Every hour brings us nearer the land of our dreams. The delightful companions that one meets on shipboard, making life-long friends often from an overnight acquaintance, the excellent food furnished, the care and courtesy that the officers of the ship always extend, make even the dreaded Cape Hatteras no more than an incident in the voyage; and soon we are beyond the danger zone and sailing peacefully on calm seas, shedding our winter garments as an unpleasant dream in the reality of the morning.

The third day we reach our destination at Key West, and in spite of the early hour the inhabitants are out in force to bid us welcome. January has faded into the North; June has come overnight. How refreshing are the green grass, the warm sunshine, the flowers blooming on every hand!

A boat load of negro swimmers put off to show their prowess in diving for dimes, and they had plenty of chances to show their skill. In the clear waters around Catalina Islands in the Pacific, where a coin could be traced twenty feet below the surface, this had seemed a real show, but in the dark waters of the Atlantic, it rose to the heights of the wonderful. Hardly a coin was missed, and one bold swimmer dove from the very top of the steamer and caught a silver coin at least ten feet below the black waters, a seemingly impossible performance.

Key West has a good harbor, but it is not an ideal place to live. The enterprise of the other Florida cities seems to be lacking there. Spaniards and Cubans seem to be in the majority, and if it were not for the soldiers at Fort Adams, and for the naval officers at the navy yard, we should imagine we were in a foreign city.

Key West depends entirely upon rain water for its supply, and every house has its little reservoir. After the water has run over the dirty roofs and been sprinkled with the dust of the streets it reminds one very forcibly of the Blackstone River, polluted with the sewage of Worcester. No wonder typhoid fever is very prevalent there, and one thoroughly sympathizes with a visitor who was arrested for drunkenness. Asked by the court what he had to say, he replied, "Well, Judge, I couldn't take any chances on the water, and I didn't know the whiskey was so strong."

Key West is an ideal fishing port, and the catch there is wonderful. Every morning there is an auction sale, after the boats come in, and the quantity and the variety of the fish, and the spirited bidding, makes a very interesting picture to the visitor. Green turtles are here caught by the hundreds, and I never believed there were so many. Green turtle steaks are but ten cents a pound, and are delicious eating. They are shipped alive in large quantities to the North every week, where they are a great delicacy, and the business is a very profitable one. We enjoyed the crawfish in Key West very much. They are like our lobsters in the North, only smaller, and, properly cooked, are fully as good.

At Key West, Northern tourists coming by boat divide, part going up the West Coast to St. Petersburg, Bradentown, and other resorts on the Gulf of Mexico, the other part going up the East Coast, over the wonderful extension of the Florida East Coast Railroad—one hundred and seventy-six miles, seventy of which are over the water! "Flagler's Folly" it was called when it was building, but how much it has meant to Florida! Only a marvellous mind and unlimited capital could have constructed such a road. A million dollars a mile it cost through part of the way, and indeed one wonders how it was constructed at all. In common with many other physicians of Worcester County, I have contributed my mite in gasoline to the Standard Oil octopus. I have received the biggest return on my investment I ever dreamed of, in my ride over this road. It is true I paid for it, six cents a mile from Key West to Miami, five cents a mile from Miami to Palm Beach, and four cents a mile the rest of the way,—the only road I know of having such a varying mileage.

Even my fertile pen will fail to do justice to that ride. Into vast swamps, where the mango trees flourish in tropical profusion, out onto the little keys dotting the water; then over the great concrete arches into the broad Atlantic, where for miles nothing could be seen but water. There is no road like it in America. Such a profusion of brightly colored wild flowers, stretching as far as the eye could see, would be succeeded in a flash by most wonderful colors of the sea, a bright robin's-egg-blue predominating, but every color of the spectrum being visible. Long Key Fishing Camp was reached at noon and here we had thirty minutes' stop. It is a beautiful little oasis in the desert of water; a paradise for sportsmen, with a fine hotel a many pretty cottages. Cocoanut palms grow here in profusion and are loaded with fruit. As we go north from here we reach the solid land, and the homesteads of the pioneer settlers begin to appear. The utter loneliness of these places is appalling,—miles to the nearest neighbor, no road but the railroad. One feels vast sympathy for the women and children who gaze at us as the train passes by. But the wonderful fertility of the soil, the softness of the climate, free from even a touch of frost, will make this section blossom as the rose in the near future. Strange names the stations have—Cudjo, Big Pine, Ramrod, Jew Fish and Rough Rider are some of the regular stopping-places.

With incredible labor, miles of the virgin forest swamps have been cleared, and orange groves and grapefruit plantations have taken their place. The golden fruit flashes in the sunlight, mellowed by the beautiful green of the trees. The air is filled with the delicious odor of orange blossoms; robins, bluebirds and mocking birds flitted among the trees, lending their sweet melody to nature's loveliness. Truly it was worth while to be alive and there.

Soon civilization succeeds the beauty that nature has so freely lavished, and the train reaches the "Magic City"—Miami, the Queen of the South.

And here I must pause to say a word about the patron saint of Florida, Henry M. Flagler. Andrew Carnegie, John D. Rockefeller, Henry M. Flagler, the Standard Oil Trio, large of brain and with boundless optimism,—the greatest of these is the least known in the North. Carnegie has enriched the libraries of the world and added much to literature. Rockefeller has given his millions generously and been a large factor in the world's benefaction. But Flagler made a state out of a desert land, with nothing but the climate to assist him, and has added to the happiness and health of countless thousands. He built the magnificent Florida East Coast Railroad and made "God's country" accessible to a whole nation. With lavish prodigality he constructed the most wonderful hotels in America,—the Ponce de Leon at St. Augustine, the Royal Ponciana at Palm Beach, the Royal Palm at Miami. They tell a story of him there which is characteristic of the man, whether it is true or not. The Ponce was the last word in hotels, and everybody predicted its failure. Its first manager was the best hotel man in America, but he was prudent and careful. The hotel did not succeed as he wished, and he wrote Mr. Flagler that the hotel was losing five hundred dollars a day, and suggesting that the expensive chef be discharged and the orchestra be sent home. Mr. Flagler telegraphed the next day: "Get an additional chef, the best that can be secured, and double the orchestra."

Not alone did Mr. Flagler attract people of wealth and refinement from all over the world to his beautiful hotels, but he did far more. The great freeze of 1895 left Florida a ruin; land could not be given away. Oranges were supposed to be the State's only crop, and the trees were ruined. He demonstrated the fertility of the soil by showing that it was not a one-crop state, but could raise lettuce, celery, tomatoes, potatoes, at the very time when they would bring the highest prices in the Northern markets; he made it a land of diversified farming; he saved the state and fed the whole country. Small wonder that his name is revered in Florida; that he has erected a monument which shall outlast and outshine even the greatest of the Pyramids.

Miami is a city well worth more than a passing notice. It was incorporated only twenty years ago, when it had just 162 inhabitants. Today it has nearly 30,000, and is one of the most rapidly growing cities in the state. The founders of the city were men of energy and foresight, and they builded well. The city is perfectly level and is situated on the Bay of Bescane, about three miles from the ocean. The avenues all run north and south, and are numbered from A up. The streets all cross at right angles, and are numbered from 1 up. So it is very easy to find any place desired, and the blocks are perfect squares. More cement work is done in Miami than in any place of its size in the world. The sidewalks are all of cement, and they extend far out into the country. The streets are the finest I have seen anywhere, and are very neat and clean. They can easily have perfect streets, for nature has given them vast quantities of limerock. All that is necessary is for them to put it upon the road and crush it with a steam roller. A white, hard road is formed that is as smooth as a floor. When you realize that there are no stones there, nor any hills, it is easy to see that good roads are not the problem they are in some cities. There are no street railroads as in other cities. Trackless street cars provide conveyance and go easily anywhere,—a method of locomotion possible only under such perfect road conditions. They run as easily as do the street cars in other cities and do not make as much noise.

The water supply of the city is good, there being a complete absence here of the sulphur water, so common on the western coast of Florida.

I have never seen fruit of all kinds as plentiful and cheap as it is in Miami. The finest grapefruit are sold for a cent apiece, and oranges are ten cents a dozen. All the summer vegetables are raised in profusion within the city limits and are very reasonable in price. Strawberries are very easily raised and can be obtained at all times. Meat is scarce and high, and of a very poor quality, but the finest of fish can be obtained at reasonable rates, and with the abundance and cheapness of fruits and vegetables, one can live there better than in any place in the North, and for less money.

Miami is a "bone-dry" city, and no liquor can be obtained anywhere. They feel strongly on the liquor question down there, and quote Miami's prosperity as evidence of the value of real prohibition. There is a sign in the center of the city which says "No poverty here," and indeed close observation leads me to believe that this is literally true. There is work for all, and everybody is busy and prosperous. The streets are well lighted at night, and there is an absolute freedom from the rowdyism so common in even the smaller towns of the North. The city has taken advanced ground on the school question, and its splendid school facilities and noted educators have been potent means in attracting desirable persons to make a home in the "Magic City."

There are more churches in Miami than in any other city I have ever seen, and a surprising portion of its people attend church. When the town was incorporated, to induce the railroad to come there, the authorities gave Mr. Flagler every other lot in the township. With his accustomed policy he presented a lot to every church organization formed. As a consequence, churches were planted all over the town, and they are supported in a manner that would shame the good people of New England.

One could speak for hours upon the charms and attractions of Miami. To my mind it is the finest city in the United States, without spot or blemish or any such thing; worthy of being called "The Queen of the South."

This seems to be a proper place to pause for a moment in the description of places and throw a little light or dust upon the two burning questions of the South,—prohibition and the negro, and it is surprising how they are interwoven.

I brought with me to the South all the ignorance, the egotism and the cynicism of the North on these questions, and I searched every dark corner in the South with patience and enthusiasm to see if perchance I could obtain a new vision and get the viewpoint of a section of the country I always thought radically wrong upon every political or economic issue.

What is the reason for the vast wave of prohibition that has swept over the whole South, and threatens to engulf the whole country? Nothing else at the outset but self-protection. The Southern people are no more wide awake or advanced on this issue than the people of the North, but they had to do it to protect themselves. The Southern white believes in drinking, and, left to himself, would have been the last to change. But the negro cannot use liquor even in moderation, and the whites know it. What started as simply a movement to keep liquor from the negroes, has developed into real prohibition for every one. An educated white man under the influence of liquor is a sad and disgusting sight. A negro under the same conditions is a tiger let loose, a volcano to be fled from by everyone. Never shall I forget the scathing denunciation and the severe fine inflicted by a judge in one of the Florida courts, on a white man for selling liquor illegally to a negro. My insatiable curiosity led me into a "colored barroom" in Jacksonville. It was a sight to chill the blood of a Northern man. It was like feeding poison to children, and would tempt even a law-abiding citizen to wish to wield the hatchet of a Carrie Nation. I have sometimes gone across the street to avoid meeting a drunken white man. I would flee from a drunken negro as from a pestilence. Prohibition in the South means safety to the wives and daughters of every man. More power to its progress!

The negro problem is a larger question, and every Southerner says it has been solved. How? By the supremacy of the white race. This is a white man's country, and the black man must be kept in his place. Where is that place? Outside the citizenship, in violation of the laws of the United States. No negro has rights in the South that a white man is bound to respect. They love *a* negro, allow them to attend their wives and children, to be real mothers to their choicest offspring. Indeed, from the appearance of many negroes, almost white, in the South, even grown men are not averse to taking them in their arms, alas too often. But this only proves the case,—the negro or any of his family has absolutely no protection from the white man. Look at this instance. In buying land in the South one must sign a cast-iron agreement binding himself and his heirs never to sell a foot of land to a negro. I doubt if a deed like this would bear a Supreme Court test, but this I know, that no man would dare to violate its provisions and attempt to live there afterwards.

The negroes are compelled to herd together like sheep, in the worst part of the town. Even the thrifty and educated are not allowed to get away from degrading environments. In every railroad station they are compelled to use a separate room,—often filthy, always poorly attended. In many places I found the toilet rooms of the negroes used by both sexes, and horribly unclean. You can guess what this means in the uplift of a degraded race.

Avoid it if you will, the South does not wish to have the negro educated, for with education must come a certain recognition of equality, and that he will not have. But, you say, what about the heroic Dr. Washington and the far-famed Tuskegee Institute? Does not the best element in the South support and approve of that? Yes, but only because the wisdom of its leader was devoted to instructing the pupils in trades and in domestic branches, where the Southern white needs them. Not one step does he admit this leads them towards equality. The South is dead wrong in its attitude towards negro education. In one prominent Florida city, settled almost entirely by Northern people, too, the school tax for white children is 20 cents on $100, and for colored children three mills. And yet more than half the children in the city are colored, and the negroes pay a large share of the taxes. They are not allowed in the white schools, but have inferior accommodations, often incompetent instructors, and no system. Northern teachers who go South to take charge of these schools are not recognized as equals by the Southern people.

St. Petersburg is one of the most progressive cities in Florida. Many of you know of their annual Washington's Day parade. It is one of the finest sights I ever witnessed. For months they are trained daily, and it is doubtful if any city in the United States gives such a fine exhibition; and yet not a negro child is allowed in the parade. Any of us could suggest how all of them might fit into this parade by themselves, to their own immense benefit, to the honor of the city, and as a characteristic illustration of a complex Southern problem. And yet one of the finest teachers in the public school there lost his position because he dared to propose that they be included.

Not only is the Southerner not willing to recognize the negro, but he is determined the Northern visitor shall not. He coerces the United States Government by forbidding him to write in the post-offices, except at a separated, ill-lighted desk. In Sanford I took a ride in a sight-seeing car, and out of sheer perversity sat in the negroes' seat and fell into an animated conversation with an intelligent darky. The white seats had all been filled before the conductor observed me. We were alone in the colored seats. After a time of scowling at me, he went to a man who was occupying a seat in front and talked to him. The car stopped and the man got out and sat with the driver. Presently the conductor tapped me on the shoulder and said, "I have found a seat for you in the white section; this is reserved for 'niggers.'" I smiled and went.

I was in Miami when a great revival was started. The organizer wanted every one in the city who would endeavor to lead a better life to enroll themselves, but he said, "We only want white converts; we have no use for the colored ones." Now I know that there were lots of Christian negroes in the city and that they would have been of immense help to the cause and their race, but I found that the whites of the South would go only to a white man's heaven and by a white man's road. But I learned something more. Near Rockledge is a convict camp, where some of the worst malefactors in Florida are confined. A great riot took place while I was there, and the cause was the placing of a negro convict in the same prison with the whites. Even a white murderer considers himself far above a negro chicken thief. And so I found that men who were bound straight to hell would go only to a white man's hell and by a white man's road. Alas for our boasted civilization! Small wonder that the negro is leaving the South in immense numbers and coming North to receive educational and political freedom.

But now that I have unsparingly lashed the South, with the undoubted sympathy of a Northern audience, I am going to antagonize every one of you. Were I living in the South I would not allow a single negro to vote if I could help it. I would not admit them to any lodge, society or organization to which I belonged. I would not give them any position of trust or responsibility. The United States never did a greater wrong than when they gave the negro the right of suffrage. The Southern people must fight this problem out for themselves. They are going about it all wrong, but sometime they will see the right. Few people, even in the North, still believe in a Force Bill, which once came so near being the law of the land. The negro cannot have the ballot again until the South is willing to give it to him, and even the whole power of the United States cannot force it upon the South till that time comes.

Now before I leave this subject let me lose the last bit of your sympathy. The North would treat the negro just as the South does if conditions were reversed. Right here in Worcester County within five years an educated, refined school teacher was forced out of a public school, where she was doing splendid work, because the other teachers accidentally found she had negro blood in her veins, and the white teachers refused to associate with her. Not a school committee in Massachusetts would dare to give a position to a negro, to teach, in spite of qualifications. The recent riots in Springfield, Ohio, where many innocent negroes were killed, is only what we cry out against in the South. The problem is coming to us in the North soon. Have we the courage to face it and the intelligence to solve it, or shall we join with the South in spelling negro always with two "G's"?

One thing more I want to say about the South in general. It has other handicaps besides the negro in its race for supremacy with the North, and its greatest one is its contempt for the penny. Much has been said sneeringly about Yankee thrift, but it is the basis of our prosperity. The South despises a cent and ignores it at all times. The cheapest daily paper is five cents, and most of them are not worth half a cent. A quarter of a dollar is not twenty-five cents there. It is only "two bits." Such an insignificant thing no person would look at twice. If the South is going to compete with us successfully it has got to reform in its views of the value of a cent, and acquire a little of the despised Yankee thrift.

Much has been said about the Everglades, and the land scandal in connection with it assumed national notoriety. I was in that section when a farmer from Michigan came down there. He had bought a section of land there, sold his farm at home and brought his family with him. He found the whole section under water, and if it has not been drained, it is so yet. Moral: never buy land in Florida you haven't seen. The government has run a canal from the Miami River seventy miles through this dense swamp. The trip up there is one of the most interesting in Florida. The steamer leaves the city and runs for several miles up the Miami River, a winding and beautiful stream that takes one past fruitful orange groves, beautiful residences and palms of every description; past long stretches of the curious mangrove trees, and joins the canal, which has been built at so much cost. Soon the fertility near the city is succeeded by dense forests and impenetrable thickets, passable only by the Indians and the alligators. Along the banks are multitudes of beautiful blue herons, while over our heads soar, in their graceful flight, countless numbers of those scavengers of tropical countries, the turkey buzzards.

The land through which we pass is absolutely worthless until it has been drained, when it becomes a veritable treasure-house for the farmer. The soil is a revelation to a New Englander. It is like gunpowder, so soft and free from stones that it can be worked with the fingers. In this wilderness we saw wonderful fields of corn, potatoes and beans. Vast quantities of rice will be raised here in the near future. Coöperation and negroes will be necessary to the success of this undertaking. Individual farmers had better try some other part of the state. Here live the last remnants of the Seminole Indians. In their canoes they come down to Miami to trade, and their picturesque costumes give a startling color to the streets, as, rifle on shoulder, they gaze on the changes the white intruders have wrought.

In ascending the coast from Miami one will make no mistake if he forsake the railroad at Palm Beach, and continue the trip to St. Augustine by boat. It is inland all the way, and takes three days, the boat running only in the daytime. There are all-night stops at Fort Pierce, at Rockledge and at Daytona,—all interesting and distinctive places, where one can see so much of the real part of Florida. The Indian River up which we pass is probably as well known as any section of Florida, from the vast amounts of oranges which are sent North from there. It is not a river, simply an inland lake, that stretches nearly the whole length of Florida and connects at various points with the ocean. Before the railroad was built this was the only means of communication with this section, and the state has gone to a large expense to make the river navigable. Several canals had to be dug where the water was shallow, and it still requires much caution to keep in the channel. In some places we could touch the trees on the bank as we passed along. In others the river would be three miles wide, and it seemed as though we were on the ocean.

The prettiest sight on the whole river was the thousands of wild ducks we encountered. I never believed there were so many in existence. For two days we passed through almost continual flocks. They seemed to have but little fear of us and would wait until the steamer was within a few feet before flying. Their low graceful flight, the beautiful colors glistening in the sun, as they just skimmed the water, was worth going miles to see.

Thousands of beautiful islands were encountered, many of them as fine as any in the St. Lawrence River. A hail from one of these islands caused the captain to direct his course to the shore, and the occupant passed us a large box of oranges, which he thought a fair recompense for the sight of new faces and our old newspapers. We certainly had no reason to complain of the exchange. That we were in the heart of the very finest orange country in the world was soon evident. The sweet perfume of orange blossoms filled the air, and the river simply flowed oranges. The supply was so large that only the best were saved, and carloads were dumped into the river to get rid of them. Riding along the highway near Rockledge, time after time we would see a large pile of oranges, and a sign, "Free, help yourself!" But it only illustrates the fertility of this section. The problem of transportation is the great difficulty. The North wants the oranges and could consume any amount if the cost were not so high. The Florida East Coast Railroad controls the whole output, and they do not meet the orange-growers half way. Consequently the latter feel very bitter towards the railroad, and there is bound to be trouble there in the near future.

But the limits of my time are long past, and I have finished only the first chapter. A few general observations and I will close. The way to visit Florida, to get the best results, is to avoid hotels and hire furnished houses or apartments. I have been in every section of the state, and find this can be done everywhere. In Miami we hired a house for thirty-five dollars a month, while in Rockledge we secured a nicely furnished house of seven rooms for twenty-five dollars a month, and with it went a grove of fifty orange, tamarind and grapefruit trees in full bearing. How we enjoyed that grove, and how our friends in the North profited thereby! Living in hotels is too expensive and one eats too much meat, which ought to be avoided in Florida. Keeping house, one lives as do the residents there—simply, cheaply and healthfully. Gas stoves in the cities and kerosene stoves in the country places make the work easy and the problems light.

Any person with energy and a little money can do better in Florida than in any state in the Union. The state is attracting ambitious men from everywhere, who recognize its wonderful possibilities. No one, however, with safety can purchase land there he has not seen, nor can he hire land for some one else to develop and expect to see his money again.

On the other hand, anyone can go there and add five years to his life by so doing, and immeasurably to his happiness, for the old Spaniard was not mistaken; the "Fountain of Youth" really exists in Florida and I have drunk of its water. Would that every one of you might do the same!

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Massachusetts Anti-Tuberculosis League.

THIRD ANNUAL MEETING, BOSTON, APRIL 10, 1917.

Introductory Remarks by the President.

By Vincent Y. Bowditch, M.D., Boston.

We come together today for our annual meeting under conditions which bring up weighty questions to each individual, to determine in which direction duty lies in the endeavor to serve our country best in the crisis now before her. May I give my personal conviction, after perplexing doubts which must naturally arise at such a time?

I feel very strongly that those of us who are working in special lines should not relax in our present efforts or change our form of work, unless special calls come, which make it imperative to take up what seems a larger duty. The conditions to which we are now giving our time and energy will not change so much for the better that they can be left to chance, and, in my opinion, if we continue the great fight against disease and stick to our posts, we serve our country as faithfully as those whose efforts have to be directed into other paths in consequence of sudden and great emergencies. I sincerely hope that in the coming months there will be no lessening in the number of those who have already done so much to make the work of our League so far of great value to our State.

Since our second annual meeting, in April, 1916, the attention of the public has been called to conditions on the other side of the Atlantic, especially in France, which make us realize that the older country is far behind our own in the handling of tuberculosis, especially since the appalling increase of the disease consequent upon war conditions there. The impossibility of coping with it adequately without sufficient aid from us is, moreover, painfully evident. It is gratifying to the sense of pride in our own work that France is turning to us now to learn the proper methods of treatment and prevention. The fact that through the Rockefeller Foundation, the man most eminently fitted for the position—Dr. Herman F. Biggs of New York—was sent abroad to study the tuberculosis question in France and to give his valuable aid in combating the disease, is proof of the respect which is felt for the work of America in these directions. These facts stand as an inspiration to us for continued and increasing endeavor in our special work.

The urgent calls for aid from Mrs. Edith Wharton in establishing proper hospitals and sanatoria for the afflicted soldiers in France, and the equally urgent appeals from Mrs. Post for the formation of dispensaries in Normandy and Brittany, should receive generous response from our own countrymen. Those of us who are working here on these special lines do not begrudge one iota of the large sums of money which are sent to sufferers abroad, and we cordially endorse these appeals. At the same time, we realize that the work necessary in our own country should not, must not, suffer in consequence of the need abroad. The terrible ravages of tuberculosis have not at present, perhaps, what may be called the sensational features of those on the other side of the Atlantic, but we all know and should let others know that we have still a tremendous problem before us here, and there must be no lessening—rather an increase—of the realization of this fact in our own great and wealthy country. Private institutions here are suffering for lack of funds in consequence of this great war and because of the natural and deep interest of our citizens in the welfare of a nation to which we owe so much for its aid to us in the past; but we have wealth enough to meet the needs of both.

With these statements as a preamble, let us turn to the specific work of our Association during the past year in contributing its share of support to various important measures. Since our last meeting, the act to provide for the construction by counties of tuberculosis hospitals for cities and towns having less than 50,000 inhabitants, has been passed and has become a law. The bill introduced by the State Department of Health has received active support in the discussions upon the subject by the representatives of the League,—chiefly by our efficient executive secretary, Mr. Stone, who has acted also as mouthpiece for our various committees.

Support has also been given by the League to two bills before the Legislature on the very important subject, "The Care of the Incorrigible Consumptive." One bill, making provision for the removal of offenders from surroundings in which they are a source of danger, is at present under favorable discussion; the other, which provides means to establish a suitable special hospital or place of detention for such delinquents, has not met with success this year—a fact which calls for further and persistent effort on the part of our members to impress the community with the importance of these measures. Massachusetts is still somewhat behind other states in this special matter. It should not remain so longer.

The reporting of cases of tuberculosis by physicians to the local and state boards of health is still far from what it should be. Although there has been undoubted improvement in this regard, statistics prove that there still exists great laxity in obedience to the law requiring physicians to report all cases. Nothing is more demoralizing to a community than disregard and contempt of laws which are made for the protection of the health of all. Constant watch is, therefore, necessary in such matters to see that laws are enforced. There has been a very marked improvement in recent years, since the anti-spitting laws were made. This is especially notable in our railroad and trolley cars, except in the smoking compartments, which are often in a disgraceful condition. Spitting upon the platforms and sidewalks, however, is still rife in most communities and demands a more rigid enforcement of law. A few arrests for misdemeanors have had in times past a wonderfully beneficial effect, which, however, gradually lessens as those in authority relax in their vigilance. Our tuberculosis societies and members of our League still have much missionary work to do in all these matters.

We have every reason for encouragement in our work. Dogged persistence is the only way to accomplish the desired end. We are having constant proofs of the decline in the death rate from tuberculosis, but a complacent optimism on the subject is not going to bring success. Only by united effort such as can be accomplished by the societies which form our League, can we hope to get control of the disease.

In this connection, I am glad to call special attention to the interesting experiment now being made by the Metropolitan Life Insurance Company of New York, which has established a "Community Health Station" in Framingham, Mass. That a Massachusetts town should have been selected for this is most gratifying, and there is promise of deeply interesting results which may be much more far-reaching throughout our country than we now dream. We are fortunate in having with us today Dr. Donald Armstrong, who has this experiment in charge. This work will offer an excellent opportunity for study to the members of our League so far as it touches the question of tuberculosis.

How much has been accomplished during the year in regard to the after-care of consumptive patients who have been discharged from sanatoria,—a subject of paramount importance,—we shall learn in a paper to be given today by Miss Billings.

It cannot be reiterated too often, that however successful we may be in establishing sanatoria, hospitals, and dispensaries or whatever for the cure and treatment of tuberculous patients, we must constantly keep in mind the still greater importance of preventive measures. We know that improper housing, poor accommodations in factories, and impure milk are prolific causes for the production of the disease. Persistent work in our ever-increasing attempts to remedy these evils will, we have every reason to hope, result in a still greater decrease in the mortality of this disease in the coming years.

TUBERCULOSIS IN DAIRY CATTLE.

BY CURTIS M. HILLIARD, BOSTON,

Professor of Biology and Public Health, Simmons College.

TUBERCULOSIS in cattle has been more or less neglected by anti-tuberculosis societies because of its relatively low incidence in humans compared with the human type of infection. On the other hand, the fact that the occurrence of bovine tuberculosis in man is absolutely preventable, while the human variety is, at best, reducible only, would seem to make it imperative that the cattle disease should receive prompt and vigorous attention by all agencies and societies that aim at this scourge. The diseases that are generally transmitted from person to person, as contrasted with those that depend primarily upon some intermediate host or inanimate vehicle, are more difficult to control, for we can take any measures we choose in combating the microbes in the latter sources, while infected human beings must be treated with due regard to personal liberties, and they are willful agents, who must to some extent mingle with other persons. So cows, and food products derived from these animals, are amenable to any legislation we may choose to enact and enforce, or any specific treatment any owner may choose to practice. The human type of bacillus—almost ubiquitous in man—is kept within bounds chiefly in proportion to the degree of intelligent care which the patient uses in regard to the oral discharges, for he is only slightly responsible to legislation and enforced treatment.

Tuberculosis in cattle was recognized by Koch in 1882 in his early work on tuberculosis. He believed at that time that the microbic agent in the two hosts was identical, and this view was generally accepted until 1896, when Theobald Smith described certain striking differences, which have since that time been amplified. The professional world was startled in 1901 at the announcement by Koch that human and bovine tuberculosis were distinct entities, and that there was practically no danger to man from the existence of the disease in cattle. This stimulated a tremendous amount of work in many countries, which has led to the unanimous conclusion that bovine tuberculosis not only may be transmitted, but actually is frequently the cause of the disease in man.

The bovine bacillus resembles the human type in general, but tends to be a somewhat stouter, more solid staining organism. It is more virulent for animals ordinarily used in the laboratory, particularly the rabbit, and upon culture media containing glycerine the fermentation curve is characteristic.

In nature, the bacillus is found to live an exclusively parasitic existence. It is found to occur chiefly in the bodies of dairy cattle, but may also infect beef cattle, hogs raised in dairy districts, and rarely other animals, and finally is found in man. It is difficult to make any general statement regarding its prevalence in cattle. Less than 1% of beef cattle are tuberculous. In dairy herds, the disease seems to ravage the Eastern states more than the Western in this country. In New York, from 1910-1912, of 39,330 cattle examined by the tuberculin test, 7171, or 19%, reacted. In Vermont, during the last four years, out of approximately 29,000 tests, between 10 and 11% have reacted. The state commissioner on domestic animals in Connecticut states in the 1916 report "that 30% of our cattle are infected with this dreaded disease seems probable from those found in the herds, the owners of which have taken advantage of the tuberculin test." The Massachusetts commissioner states 12% as an approximate figure for this state. Of 35,000 cattle examined in England, about one-fourth proved tuberculous. Further citation of figures would be tedious. To be extremely conservative, let us say that 10% of all dairy cattle furnishing milk to our large cities for infants, children and adults alike, are infected with a disease which is transmissible to man.

To be transmissible, the bacillus must be able to pass from the infected animal to man, and we must next inquire as to the possibilities for this to occur.

The muscles of the animal are rarely diseased. The federal government and most of the states are very particular about passing meat for human food which comes from diseased animals. Meat is usually heated before consumption and, even if infected, would be rendered safe by this practice. Fortunately, it is now possible to conserve valuable food from animals not "passed" for first-class meat, by sterilizing it in cans and labelling it "second class" meat.

Milk and milk products are the chief go-betweens for the bacillus passing from cows to man. The germ rarely infects the milk glands, but when it does a most grave menace exists, for there may be almost as many tubercle bacilli in the milk as there are in sputum in active human cases, and it will dangerously infect the milk of a large number of cows, when mixed. The disease usually exists as a lung infection in cattle. The nose and throat discharges are infectious and serve as a fruitful source of infection amongst cattle themselves, but no special opportunity is afforded for the infection of milk directly from this source. Indirectly, however, the germs from this origin find their way into milk. They are "raised" by coughing, swallowed, and pass through the whole length of the alimentary tract in a virulent condition. In manure they will survive for some time, probably for weeks. Briscoe found artificially inoculated cow manure, exposed in a field for two months, still to retain virulent bovine bacilli.

Almost all milk contains some cow manure, and so it might be anticipated that bovine tubercle bacilli will sometimes be found in milk. The following table is taken from Rosenau: "The Milk Question."

TUBERCLE BACILLI IN MARKET MILK.

City.	Investigator	Samples Examined	Per Cent. Containing Tubercle Bacilli.
Chicago, 1910	Tonney	144	10.5
New York, 1909	Hess	107	16.0
Washington, 1906	Anderson	233	6.7
	Bu. An. Ind.	—	7.7
Rochester, 1907–1908	Goler	—	5.0 (about)

Probably between 7 and 8% of milk in our large cities contains tubercle bacilli. Ice cream, butter and cheese may also contain tubercle bacilli of animal origin. Cream, separated from milk, either naturally or by centrifugal force, carries bacteria with it, so that it contains several times as many organisms as does the skimmed milk. Examinations of these products, particularly butter, reveal the tubercle bacillus to be present altogether too commonly for comfort. It might be thought that the salt in butter and its storage in the cold would render the microbes harmless in a short time. In general, storage in the cold has a tendency to eliminate pathogenic bacteria, but in this case Mohler of the United States Bureau of Animal Industry has demonstrated the tubercle bacilli to remain virulent for 160 days in salted butter and for 261 days in cheese. Other investigators have not always proved such endurance, but most agree that the bacillus will survive for many weeks,—time ample for transmission to man. Furthermore, the bacillus enters through the mucosa of the intestine most conveniently with a fatty diet, so that these products are of great importance in relation to the problem.

The prevention of bovine tuberculosis in man is conveniently discussed under two separate headings: (1) The elimination of tuberculous cattle. (2) The pasteurization of milk.

Although tuberculosis is the cause of very serious economic loss to owners of dairy cattle, it is hard to make them appreciate this on account of the slow, subtle inroads of the disease. Contagious abortion, anthrax or foot-and-mouth disease stir the imagination and they will, for definite losses occur rapidly. Tuberculosis may be unsuspected in the dangerous animal, so far as physical conditions are concerned, and remains for years, perhaps, to infect other animals and to seed the milk. A careful routine physical examination by the competent veterinary will go a long way to keep a herd free from this disease, but a much more dependable diagnosis is known in the tuberculin test. The test is harmless, and of its kind is one of the most delicate tests known. In fact, it is so precise that this itself is almost a disadvantage, for it picks out animals with latent lesions, which might be milked with perfect safety for the time being, at least. It is better to err on the safe side, however, as such animals are potential active cases.

Time does not permit a consideration of the method and mechanism of the tuberculin test. Suffice it to say that the test has the confidence of most o fthe veterinary profession to detect tuberculosis in cattle, and to be absolutely harmless. That its use should not be promiscuous and should be performed only by those trained in the method and interpretation of results, goes without saying.

Given the information regarding the occurrence of tuberculosis, the badly diseased may be destroyed, while the slightly diseased may be isolated. The former, in most states, are paid for in part, at least, if the slaughtering and examination are supervised by a proper authority of the state. The reactors not seriously diseased are separated from the remainder of the herd and are used for breeding purposes, the calves being immediately removed when dropped. The milk may be heated and fed to calves and other stock. It is of fundamental importance to protect calves from infection and to avoid the introduction of infected cattle by purchases. What may be done by intelligent precaution is suggested by comparing the number of condemned animals tested upon application, and those tested for interstate shipment in the state of Vermont. The latter represent dealers who, in general, take precautions to keep their stock as free as possible from tuberculosis; while the former are the average, more indifferent owners.

Year	Terms of Test	No. Cattle Tested	Reactors	Per Cent.
1912–1914	On application of owners	16,985	1,601	9.39
	Under terms for shipment out of state	1,681	59	3.51
1914–1916	On application of owners	11,961	1,390	11.62
	Under terms for shipment out of state	9,702	366	3.77

This table shows what may be done, and should suggest the wisdom of routine testing for all farmers and breeders, from the economical standpoint alone.

The matter of introducing tuberculous-free stock only into herds which are being tested makes a heavy demand for guaranteed animals, and some official system of classification of tuberculous-free herds by proper authorities should be of considerable assistance, encouragement, and remuneration to those farmers who are striving toward the goal. Officially recognized cattle could be sold and delivered in other states without the annoyance, delay and expense of performing the tuberculin test immediately prior to shipment. Such a plan, we understand, has operated successfully in the state of Illinois through the Board of Live Stock Sanitary Commissioners, the herds being divided into three classes according to the per cent. of reactors found at the last preceding tuberculin test.

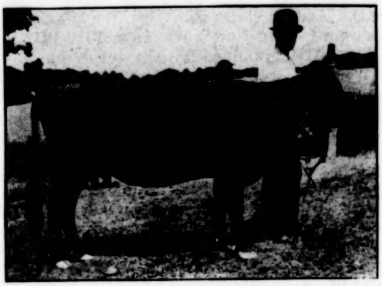

Fig. 1.—A dangerously tuberculous cow. In appearance the subject of this picture is a well-kept family cow. She is dangerously tuberculous, because she expels tubercle bacilli from her body per rectum with her feces.

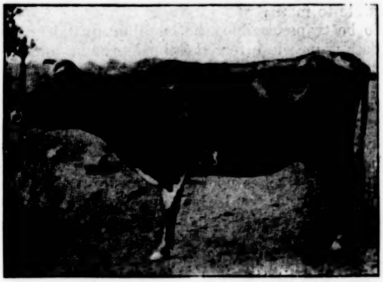

Fig. 2.—A very old and visibly tuberculous cow.

It will be a long, long time before tuberculosis is stamped out of dairy cattle, and if we must depend upon this effort alone for protection of milk and milk products from transmitting the disease, the statement that I made regarding its absolute preventability would look doubtful indeed.

With the disease existent in cattle and with market milk commonly infected, we must attack the problem from another standpoint, and that is to destroy the microbe potentially in the milk. The production of clean milk with all that it involves as to structure of barns, cleaning of stables and animals, sterilizing of receptacles and the other manifold problems, is most important and should be encouraged and enforced. From the standpoint of the prevention of tuber-

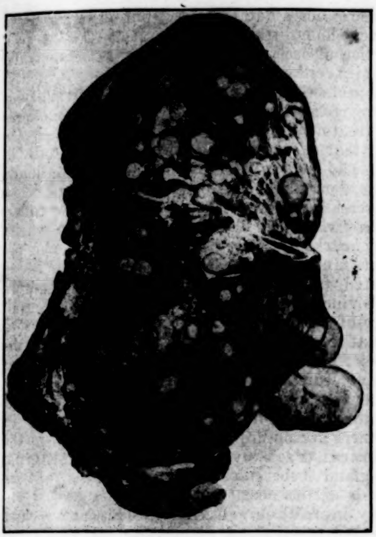

Fig. 3.—Liver of cow, showing many lesions on surface, and gall-bladder at lower right side of cut.

culosis, however, all these matters dwindle to relatively small dimensions when contrasted with pasteurization. It is difficult to understand the prejudice held against the practice of heating milk when it is the common procedure with almost all other animal food products. I am of the opinion that the occurrence of bovine tuberculosis in man is wholly preventable by the performance of this simple, common-sense practice under authoritative supervision. We have wrangled for years over the pros and cons of pasteurization, but all the conscientious objections raised in the early days have, one by one, been overthrown by scientific laboratory investigation and by practical results, until now argument and authoritative opinion are overwhelmingly in favor of heating milk to the relatively low temperature required to kill all pathogenic microbes. I know of no easier, cheaper, more certain way of avoiding any disease than by practising pasteurization of milk, and I believe it one of the most important functions of anti-tuberculosis leagues to do all in their power to bring about the day of compulsory pasteurization of all milk, except certified (and the day will come when most of that is heated also), which comes to our cities.

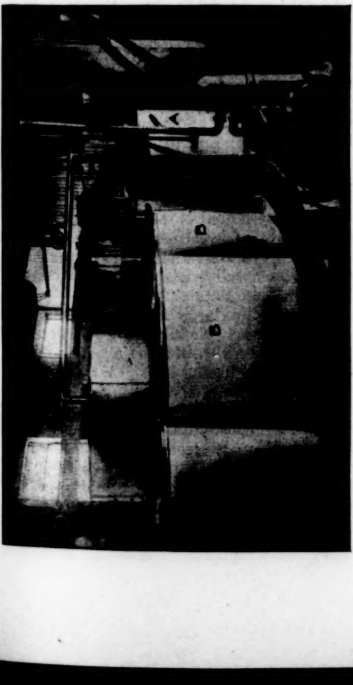

Fig. 4.—Pasteurization in bulk. Milk is heated to 145 degrees Fahrenheit in tank marked "A", then pumped into holding tanks marked "B" and held there at 145 degrees Fahrenheit for twenty-five minutes.

Fig. 5.—Bottling and capping room, after pasteurization.

The Danger to Children from Tuberculosis in Cattle.

By Richard M. Smith, M.D., Boston.

Mr. President: What I want to say is a very brief application of the facts which Professor Hilliard has given you. Bovine tuberculosis as it affects children represents, of course, only a small part of the disease in children, but it does

represent a very substantial part, and a part which, as Professor Hilliard has said, can be entirely prevented. It seems to me that every case of bovine tuberculosis is a distinct disgrace to the community in which it occurs, because it is a type of disease which need never occur if we apply the remedy.

Before we take up the disease as it occurs in children, you must bear in mind that tuberculosis in general in children is very different from tuberculosis in adults. If we wait until we see the disease in the form in which it occurs in adults we shall miss the larger number of cases, and we shall miss all the cases that are in the stage in which they can be cured. In other words, when tuberculosis in children reaches the stage of tuberculosis of the lungs, it is an incurable disease.

Tuberculosis in children, for the most part, is a disease of the bones and glands, and it enters the body, in the vast majority of cases, by the digestive tract. I am talking of bovine tuberculosis. It enters probably through the tonsils and through the mucous membrane of the gastro-intestinal tract, in most instances not producing any lesion or any disturbance, any actual disease, at the point at which it enters but setting up trouble at once in the glands which drain the part of the body through which the bacteria enter. Bone tuberculosis probably represents a condition due to organisms which have escaped from the glands, circulated freely in the blood and become localized in the bones and joints.

Tuberculosis of bovine origin represents, in general, about 25% of all cases of tuberculosis in children under five years of age. In certain types of the disease it is very much more, but taking the cases by and large, about one child in every four with tuberculosis, under five years of age, acquires the disease from cattle. It is estimated that in New York City, for instance, between 6 and 10% of the children that die in the hospitals each year of tuberculosis, die of bovine tuberculosis, representing about 300 children a year. After the disease goes beyond the primary stage, that is, the stage in which it is localized in glands or bones, it shows practically no further tendency to localization, but takes the form of a meningitis or a general tuberculosis, so-called miliary tuberculosis.

Considering now the various types of disease: first, bone tuberculosis represents a type of the disease which for the most part remains localized in a single place. It is unusual to find tuberculosis elsewhere in the body when it is present in some particular bone; that is, tuberculosis of the spine, tuberculosis of the hip or knee, or what not, is not associated often with tuberculosis elsewhere in the body. This type of tuberculosis usually runs a very long course, but in the majority of instances not a fatal course. This does not mean that cases of bone tuberculosis are never fatal, but, in general, tuberculosis of the bones is not a fatal disease, but it is a disease of very long duration. It results, in a large proportion of cases, in some form of permanent deformity, either a stiff joint or a back which is not perfectly normal. The actual deformity is being reduced constantly by improved methods of treatment, but it, nevertheless, remains a fact that a considerable portion of the individuals who have tuberculosis in the bones or joints have a permanent deformity of greater or less degree. The percentage of cases of bone tuberculosis which are due to bovine infection, varies very markedly according to the age of the patient. In a series of 67 cases which were investigated, taking all of them together, 70% were of bovine origin, but under one year of age all were of bovine origin, and under four years of age at least 78%, so that beginning with all the cases at one year, going up to the children at twelve years of age, it ranges from 100 to 60%.

Considering now tuberculosis in the glands, the three common sites of infection are: first, in the neck; second, in the chest; and third, in the abdomen. Probably the commonest of all types of gland tuberculosis is tuberculosis of the glands of the neck, and this occurs almost entirely in children. Taking 72 consecutive cases of gland tuberculosis which were operated on at an English hospital, 90% were due to the bovine type of the organism; and taking the cases under five years of age, 38 in number, all but three were of bovine origin. So there again you see the younger the child the greater the likelihood of the bovine origin. In a recent investigation at the Children's Hospital, Boston, in all the tuberculous glands in the neck which have been removed within a considerable period of time, two-thirds of them have proved to be of bovine origin. In general, tuberculosis of the glands of the neck, again, is a disease which shows very little tendency to extend to other parts of the body. For the most part, the disease stays in the glands of the neck, and, again, is not usually fatal, but runs a long and protracted course, and in a considerable number of instances leaves a permanent scar of one sort or another. Either the glands break down and discharge, or they have to be operated upon. Here again, also, the present methods of treatment are greatly improving the end-results; that is, the number of children who get well without scars is increasing all the time.

When we come to glands in the chest, our statistics are much less definite. I have not any exact figures as to the proportion of cases of tuberculous glands in the chest that are of bovine origin. It is fair to assume, I think, that at least 25% in young children are of bovine origin. Tuberculosis in this location is extremely common in children, and it shows much less tendency to remain localized than either bone tuberculosis or tuberculosis in the glands of the neck. It does, however, stay in the glands in the chest in a considerable number of cases, and if it does remain localized there the children apparently get well with no permanent difficulty; that is, the cures are considerable in number, and are permanent. It is important to recognize that glands in the chest give entirely different signs from those of tuberculosis of the lungs. It is a distinct and different type of disease.

Tuberculous glands in the abdomen present a much more serious condition. It is quite possible for the disease to remain in the glands of the abdomen, but there is a much greater tendency for it to extend outside the glands and to involve the general abdominal cavity, and when such extension takes place the mortality is high. We are dealing, in abdominal glands, with a much more serious disease and a disease for which we can do very much less in the way of cure. Figures are not available as to the percentage of the bovine type of organism in this location.

It may be said of all types of tuberculosis, that the younger the child the more severe the disease and the less the chances that the child will get well. Under a year and a half the outlook is extremely serious, and from that point on it becomes increasingly favorable as the child grows older; but up until seven years of age it still remains a doubtful problem.

The treatment of tuberculosis in children is not different from the treatment of tuberculosis in adults, except that it is even more important that we recognize the disease in the early stages. It is, of course, important in all types of tuberculosis, that this be done, but in tuberculosis in children it is particularly important, because of the fact which I mentioned at the beginning, that if the disease once becomes extensive it is practically invariably fatal, and we must recognize it in its localized stage if we hope to cure it. The real hope of eliminating bovine tuberculosis rests in prevention, not in treatment: and, as has been said before, it ought to be possible entirely to eliminate it. It comes, exclusively, from milk and its products—from milk, cream, butter, ice-cream and cheese. I think we sometimes forget that milk products, other than milk itself, may carry tuberculosis. I have not the figures at hand for the percentage of market butter which shows active virulent tubercle bacilli, but it is quite large. That is, if you went into the open market and bought butter, with investigation, the chances are quite considerable that you would in that butter have virulent tubercle bacilli. And it does not make any difference how much you pay for the butter,—the price of the butter is no guarantee that it will be free from tuberculosis.

It seems to me that we have been slow to appreciate the importance of bovine tuberculosis in children, and have been very slow to apply the remedy. There are only two ways in which we can eliminate the disease: one is to have milk as it is produced free from tubercle bacilli, or else destroy the tubercle bacilli which are present in the milk. It is extremely difficult to have a tuberculosis-free dairy herd. Expense and the necessity for buying cows and the chance of infection all make it a good deal of a problem. We should accept the statement that a given herd is free from tuberculosis with a great deal of caution, unless we have definite evidence that the tuberculin test has been applied, and applied frequently and applied correctly. We see not infrequently in advertisements of milk that it is from a tuberculin-tested herd. We are, perhaps, willing to accept that at its face value; but I believe we ought to go a little deeper than that, because the tuberculin test, unless properly applied, gives us a false sense of security. Unless we have milk coming from a herd which is, in fact, free from tuberculosis, we must pasteurize milk. I believe all the arguments against the use of pasteurized milk are based largely on prejudice, and that there is no definite proof that the pasteurization of milk in any way interferes with its food value or has any unfavorable result in its use in the feeding of children. We must insist that all milk shall be pasteurized, unless we can be perfectly sure that it comes from a herd which is free from tuberculosis. A word of caution, however, is necessary in that connection. Unless milk is properly pasteurized, we are again setting up a false standard of security. We ought to exert all our influence to have some sort of inspection or supervision of pasteurizing plants if we are to adopt the general pasteurization of milk.

STARTING HEALTH HABITS IN CHILDHOOD, AS ILLUSTRATED BY A RECENT EXPERIMENT.

BY MISS LOUISA P. LORING, PRIDES CROSSING, MASS.

WHERE children are concerned, it is difficult to draw the line between strict discipline and too lenient guidance in any branch of education, but to teach young boys and girls to form hygienic habits is an irksome task unless their interest is aroused. The Superintendent of the Bureau of Welfare of School Children, New York, Mr. Edward Brown, says: "It is trite, yet nevertheless sound, to say that all that seeks to improve the physical condition of children contributes to the general health of the community. If it is possible to render a dull pupil efficient through improving its physical condition, it would make it unnecessary to provide funds for the reëducation of such children. A child who is a good student is likely to continue in school and go on to a higher education much more readily than the child who, disappointed and in despair, leaves school owing to a bad scholarship record, the only cause of which may be some physical discomfiture, defect or disease. In the year 1913, 189,840 New York City children failed of promotion. The cost of reëducating this group for one term, based on $19.36 as the semi-annual per capita, equals $3,675,302.40. It is impossible to determine with any degree of accuracy how much of this is chargeable to physical defects—dental disease being the most common of them all. It is undoubtedly true that much of this sum probably could be saved by keeping the children in good physical trim."

The public health and school nurses, in connection with the dispensary and dental clinic, are most important factors in this field. To illustrate, I give a practical experiment just made in the Beverly Public Health Dispensary.

Slips were printed and issued to the school children of the third, fourth, fifth, and sixth grades (that includes the ages between eight and twelve), covering one week in November, January and March, the idea being that continuity would interfere with the zest of novelty. These slips gave questions as to the daily carrying out of hygienic practices, beginning with the hour of rising, followed by the cleaning of teeth and nails, hair brushing, eating slowly at meals, taking "all over" baths, etc., finishing the list with inquiry as to sleeping with windows wide open, and the hour of retiring. The answers from about 1500 children were reported.

With regard to the hour of rising, 231 said they arose between four and five, 901 between five and six, 3014 between six and seven, and 10 between eleven and twelve.

How many times in the week did they wash "thoroughly" before breakfast? Four did not do so at all, 21 washed three times a week, 55 four times, 75 five times, 154 six times, with a triumphant climax of 1129 who washed seven times in the week.

The children have been cleaner since the slips have been used. Dr. Petruschsky (Danzig) says: "Decayed teeth offer during childhood the chief passageway for the tuberculosis bacillus; thence arise the so-called scrofulous lymph ducts on the neck. Ninety per cent. of the Berlin, and 85% of the Danzig school children have been found affected by these swellings. The imminent danger of decaying teeth in early childhood is clearly shown from this." The results from cleaning the teeth, through the valuable dental clinic now established, have been very encouraging, the children whose teeth have been cleaned by the dentist being much more anxious to keep them white, the slips serving as a reminder. The slip mentioning an all-over bath every night sets a higher standard than we would expect to be carried out. In talking with the children in the schools, we find that they try to take at least two or three baths a week, thus changing the old idea of one "Saturday-night scrub."

Perhaps the most surprising statements were in answer to the hour of retiring. Starting with 13 who went to bed between five and six o'clock, through varying figures, the maximum being 5240 between eight and nine, we arrive at 156 children who went to bed between eleven and twelve, and 45 between twelve and one. There has been a decided decrease in tardiness owing to their reporting the hour of retiring. One teacher said that where she had averaged eight tardy marks a week, this had been brought down to one.

One great advantage is the increase of opening windows at night. A little Italian boy, Egidio, slept with his uncle. The first night or two the time was spent in opening and closing the window, the uncle insisting that it was too cold. Egidio won out, however, and the window was left open. Later the lad was allowed to sleep alone.

One child was left to be put to bed by the grandmother, who opened the window at first only three inches. The child said, "Grandmother, how can you expect me to report to my teacher that I slept with my windows wide open if you don't open them?"

Another child was told to sleep alone and with windows open. He pulled the mattress out into the hall, leaving three brothers and a sister to lie on the spring!

In one home the father directed the children to post the slips in the bathroom and mark them there, thus bringing direct influence from the school to the home.

The slips so far have been used as an experiment, involving time and expense, and need further trial, but the evidence is certainly encouraging. Naturally there is a temptation to reply untruthfully, but, since no prizes are given, this is a minor difficulty, and the naïveté and candor of many of the answers bespeak the awakened interest of the children, and that is the factor for which we are working in order to confirm suggestion into habit.

COMMUNITY HEALTH AND TUBERCULOSIS DEMONSTRATION AT FRAMINGHAM.

BY DONALD B. ARMSTRONG, M.D., FRAMINGHAM, MASS.,
Executive Officer.

MR. CHAIRMAN, LADIES AND GENTLEMEN: I told Mr. Stone that I probably should not have time to prepare a formal paper for this occasion. Perhaps you are glad to know that I did not have time and I shall take up only a few minutes and try to tell you briefly about the Framingham health and tuberculosis demonstration in an informal way.

As you probably know, the health demonstration in Framingham is under the auspices of the National Tuberculosis Association, and is financed by the Metropolitan Life Insurance Company, or by a gift from that company to the National Association for the special purpose of carrying out in a chosen town a demonstration aiming at the discovery and control of all cases of tuberculosis in all stages, and incidentally at the carrying out of a complete health program for the community. The objects of our health demonstration are, first, then, the discovery, treatment, care and prevention of tuberculosis. It is believed, however, by the committee which has this work in charge, that it is impossible to get at the tuberculosis problem unless the work is given a fairly wide range. It is not a disease, as you know, which affects a definite age group. It is an infant problem and a school problem. It is a serious industrial disease factor. It is a problem which affects all age groups, and for that reason our program in its construction and in the way in which we are attempting to work it out at present is a general health program. It is also, as far as the discovery and treatment of tuberculosis and the general health of the community are concerned, a problem of controlling the various agencies in the community that are, at least, potential factors for disease detection. It is a problem of shaping those agencies and those influences to the end of disease detection, disease elimination and health correction. From that point of view, a complete community health program is, in reality, an experiment in social organization, so that the view that we have of the job in Framingham is not only a tuberculosis job and not only a health job, but in reality and fundamentally a problem in community organization.

We believe that there are certain fundamental essentials in carrying out such a community program. First, it is essential, in our estimation, that the work be done on a coöperative basis, that it be done on a persuasive basis, a democratic basis. As a matter of fact, that is not only wise but it is absolutely necessary, in view of the fact that we have no machinery and no authority to do anything else. It is believed, though, that if we can, in this town and in this country, work out an experiment which will be successful in detecting preventable disease and in encouraging health,—an experiment actually worked out on a democratic basis, successful because of the coöperation which it receives from the individual citizens and from the agencies and organizations, official and unofficial, in Framingham, we shall have made a demonstration that will be of special importance at the present time in this country. It is from that point of view an experiment in democracy.

Now, another essential is that the work be on a permanent basis. We are attempting to do things with as little artificiality as possible. By that I mean especially that if we carry out a health measure, and it is proved to be a desirable thing from a routine point of view, then what we have done, in so far as possible, should be placed on a permanent basis by the local agencies, so that when we are through with our demonstration there will be left in the community an adequate machinery for carrying on the health and disease preventive work of the community. I refer, for instance, to such a matter as medical school inspection, and also, perhaps, factory medical supervision, and things of that kind, which are of permanent value to the community.

Another essential of the work is to have always the advice in every field of the best expert help we can get. Now this applies, not only to medical activities such as the consultation service that we have established for the local physicians in cases of doubtful diagnosis for tuberculosis as well as perhaps for other things (at least other things that may complicate the diagnosis of tuberculosis), but it also applies to the educational work which we want to carry out, to the problems of school hygiene, and to the problems of factory hygiene. We have, for instance, just completed a special study of school hygiene with the coöperation of the public health service, which service assigned to us its school hygienist for the special job of determining what was the best, most adequate and most economical method of meeting the needs of the school children in Framingham from the point of view of health. The same thing probably will be done on the factory side. I am glad to say that this latter study, or rather the former one that I mentioned, the school problem, resulted in adequate action on the part of the community. At its last town meeting the town, having previously spent about $1200 a year for health work, increased this to $4000, making possible a full-time medical school inspector, probably two school nurses and some clinic facilities. This was, in part at least, a result of our investigation, and a result of the work and the demonstration made by the public health service of what was needed. That illustrates several principles that we are working out: outside expert coöperation, and the encouragement of the community to meet its own logical health obligations.

To come more specifically and briefly to the program, as we are trying to work it out, it includes several major phases. In the first place, there is the acquainting of the community with the things that we are trying to do. We have published a pamphlet and several leaflets, which have been widely distributed. We have had excellent coöperation from the local press in the dissemination of facts about the work, and we have in every way attempted to get the people of Framingham interested, through the appointment of local committees of various kinds, and through the dissemination of facts about the work which we are attempting to get started. This educational work, however, is just beginning. We are attempting to carry it out along the lines of a well-established program, which would cover the three or four or five years of the demonstration; a program which would emphasize certain things at certain times, taking advantage of seasonal opportunities to place emphasis upon certain special health or disease preventive principles; a program which would take advantage especially of routine regular educational opportunities, such as the regular classes in the schools, in the high schools, in the Sunday schools, and elsewhere. That program, as I say, is a three- to five-year proposition, and it is being worked out on that basis.

Obviously, the first thing we have had to do is to make a diagnosis of conditions in Framingham. We are just now in the midst of our community diagnosis. This is a problem of diagnosing a community from the point of view of tuberculosis as well as of disease incidence and unhygienic conditions in general. It falls along two main lines. In the first place, we have the question of the environment, the surroundings in which children go to school or infants live or people work, or the homes in which they live: in other words, the environmental problem. We are completing a thorough study of sanitary and hygienic conditions in Framingham, covering all parts of the community, rural as well as urban, considering also the school problems, the industrial problems, etc., so that we shall know within a short time what are the special disease hazards in the community, what are the things that are apt to cause disease or to encourage the development of disease, particularly tuberculosis. In this work we have the coöperation of such agencies as the Russell Sage Foundation of New York, the United States Public Health Service, the State Department of Health, the Board of Labor and Industries, and other official and private agencies. That is one side of the problem, the easiest side from the point of view of making a diagnosis, because the other phase concerns the individual himself.

How much sickness is there actually in a town of 16,000 people? How much sickness is there from the point of view of special age groups, of school children, factory workers, etc.? How much sickness of special kinds is there, such as tuberculosis, for instance? I don't mean only admitted, obvious illness; I mean incipient disease, unrecognized disease. It is essential that we know these facts about Framingham as near the beginning of the demonstration as is possible, because we want to be able to compare conditions at the end of the demonstration with conditions now, and we want to be able to know along what lines it is most urgent for us to expend the amount of money we have to expend for disease prevention. So, we are attempting just at this time, with the help of the insurance agents and of the nurses from the local hospital and some nurses loaned to us by Boston agencies, to make a thorough canvass of existing illness in Framingham. That, of course, will give us admitted illness in so far as we are successful in soliciting reliable information.

At the same time, we are attempting to find about 500 or 600 families who will be willing to have a thorough medical examination by physicians whom we shall bring to the town,—physicians who will come from the state institutions, the public health service and other agencies. In this way we shall get a thorough medical canvass of a reasonably large part of the community. If our selection of families is various and typical of the community, of the different conditions, different nationalities and age groups in the community, we shall be able to tell about how much sickness of various kinds there actually is in Framingham. Consequently, the study of the individual disease incidence is a complementary part of making a diagnosis, supplementing the study of environmental conditions.

You may wonder—and I am sorry I have not time to go into more detail—about what we are going to do after we know what the conditions are in Framingham. That is the other side of the story. In the first place, it is obvious, I think, that we are devising machinery to detect disease, and if it works we are going to find disease through several methods, particularly tuberculosis, but other preventable diseases as well. We are going to find sickness through the sickness canvass; through the thorough medical examinations; we are going to find it through the full-time medical inspector for the schools, through the factory medical supervision, which we have reasonable assurance of being able to see provided by private industrial agencies in Framingham. We are also, of course, working out a plan with the public health service by which the physicians of Framingham will be asked to report morbidity of all kinds. We are asking them to take advantage of a consultation service for the determination of a diagnosis in difficult cases, especially pulmonary cases. That ought to help us, perhaps, in detecting certain incipient cases; in fact, it has already been of benefit in several instances of that kind. We eventually, of course, want to demonstrate to the people of Framingham the value of thorough medical supervision, of thorough medical examinations. We want to demonstrate also to the *physicians* the value of thorough medical examinations, as well as the method and the technic of making thorough medical examinations. To accomplish the latter object, we have organized a local medical club, and under the auspices of that club there will be brought to Framingham from time to time the best lecturers that we can find anywhere in the country, who will hold lectures, demonstrations and clinics on thorough methods of examination, on the detection of incipient disease, on other matters of medical and disease-preventive interest. If we are successful in the medical examination work which we are undertaking at the present time, we shall have another argument, not only with the physicians, but also with the people, for the value of thorough medical control.

We can then say that we have examined a certain percentage of the people of Framingham. We can say that in that number a certain percentage of people are sick, a certain percentage are sick with preventable disease, a certain percentage are sick with incipient disease. If that is true for this typically selected sampling of the community, it would also probably be true for the rest of the community. It gives us a basis for advocating medical control and thorough medical examinations.

In this work we need, of course, the coöperation and sympathy, especially of local people, and of outside agencies primarily interested in disease prevention, particularly tuberculosis. The committee in charge of the work believes that with such coöperation we shall be able, in Framingham, to demonstrate that a firm physical and health foundation on a community basis can be laid for future social and economic growth.

County Tuberculosis Hospitals: Report of Progress.

By Eugene R. Kelley, M.D., Boston,

Director of the Division of Communicable Diseases, Massachusetts State Department of Health.

This part of our program is rightly entitled "A Report of Progress," for progress in this important field of anti-tuberculosis activity has been most satisfactory in this State in the past year. The law as enacted (Chap. 286, Laws of 1916) provided that, with the exception of five counties, the county commissioners must furnish tuberculosis hospital accommodations for all the cities and towns in each county having less than 50,000 population (1910 census) and not already possessing tuberculosis hospitals. All cities over 50,000 population are still required to provide such hospital accommodations, independently of the counties, by the provisions of the original hospital law (Sec. 35, Chap. 75, with subsequent amendments). Cities having less than 50,000 population, but already maintaining, or having maintained for their benefit, tuberculosis hospitals at the time of the passage of the county hospital law and continuing to maintain them in the future, are also exempt from the operation of the county law. The list of such cities is quite a considerable one. They are: Pittsfield, Chicopee, Fitchburg, Haverhill, Salem, Clinton, Brookline, Waltham, and formerly, also, Everett. Since the county law went into effect the city of Newburyport has also been exempted from its operation by a special act of the present General Court because of the donation to the city of a tuberculosis ward in connection with the Anna Jacques Hospital.

Of the five exempt counties, Barnstable and Hampshire already possessed tuberculosis hospitals, erected under the authority of special statutes. Dukes and Nantucket counties have such small populations that it would be absurd to require them to maintain tuberculosis hospitals. Suffolk county consists of the city of Boston and the cities of Chelsea, Revere, and the town of Winthrop. A peculiar feature in this county is the absence of most of the machinery of county government. There are no county commissioners and most of the functions of the county government have been vested in the city council of Boston. Boston being, of course, already provided with tuberculosis hospitals, it was found necessary by special section of the county tuberculosis hospital law to provide that the city and town officials of Chelsea, Revere and Winthrop should furnish tuberculosis hospital facilities in the same manner that commissioners do in other counties.

The law provided that county commissioners might comply with its provisions by either of two methods: (*a*) by providing that the necessary bed space be furnished by contract with existing institutions before January 1, 1917, for patients from designated cities and towns within the county, or (*b*) by building a new hospital or hospitals for the benefit of the cities and towns coming under the terms of the act before September 1, 1918. In either case the number of beds available must be at least one bed for every two deaths annually, in the cities and towns affected. The number of "deaths annually" is determined, however, for the purposes of the law, by taking the average number of deaths annually from consumption in the cities and towns in question for each succeeding five-year period, beginning with 1911. Another provision of the law, as originally enacted, stipulated that no new hospital should be constructed with a capacity of less than fifty beds.

Certain unforeseen defects and omissions in the original law resulted in several amendments being necessary during the present session of the Legislature, but, on the whole, the law has worked out smoothly. Less advantage has been taken of the contract possibilities of the law than we anticipated when passed. Franklin and Hampden counties have complied with the law by making a contract arrangement with the Hampshire County Tuberculosis Sanatorium. The commissioners of Worcester county still hope to perfect an arrangement by contract with existing institutions in various sections of that county, and for that purpose have obtained an extension of the time of complying with the law by contract from January 1, 1917, to April 1, 1918.

In Berkshire county it was found impracticable for the county commissioners to obtain a mutually satisfactory contract arrangement with the existing tuberculosis institution, which is owned and controlled by the Pittsfield Anti-Tuberculosis Society, and by virtue of which the city of Pittsfield obtains exemption from the county hospital law. A study of the local tuberculosis situation for the remainder of this county showed conclusively that in all probability not more than one-half of the legal minimum of beds necessary under new construction, *i.e.*, fifty, would be necessary to comply with either the statutory ratio of beds to deaths, or with all probable prospective demands for bed space for many years to come. The commissioners, therefore, sought an amendment to the law, permitting them to erect a new institution with as many less than fifty beds as the State Department of Health would approve. This bill has already been enacted, and the Berkshire County commissioners assure us that they will speedily select a site and commence building operations.

The county commissioners of Essex, Middlesex, Norfolk and Plymouth counties have already secured their sites, and are planning to begin construction within a few weeks. In all these counties various contract schemes were carefully considered. In some instances, with the expectation of supplying all the beds required by the law by means of contract arrangement, in others simply with an idea of providing for the hospital needs of certain sections of the county by means of contract, and for the rest of the county by new construction. In Middlesex county the minimum number of beds required, 210, was so large as to cause the commissioners seriously to consider the advisability of building two institutions in different sections of the county. But in all instances it was finally decided that the provisions of the law could be best carried out and the largest proportion of the population provided with reasonably nearby hospital accommodations by the construction of a single institution. Architects have already been selected or are now negotiating with the commissioners of all these counties. There has been and still is a certain amount of objection to nearly all the sites chosen, based principally upon a totally erroneous conception of the effects of a tuberculosis hospital upon its surroundings.

The county commissioners and the district health officers of the State Health Department have all devoted much time to the study and inspection of available sites and have conferred with each other repeatedly over the site problems during the past six months. As a result, we believe the sites selected are, in each instance, the best possible site in the county. Some astonishingly gratifying results as to accessibility have been obtained by this careful study. In Norfolk county, 47% of the population to be served is within a three mile radius, and 75% is within a ten mile radius. In Plymouth county the site is immediately adjacent to the principal trolley line across the county, adjacent to one of the principal state highways, and within a quarter of a mile of the railroad station and, in addition, 36% of the population to be served is within a five mile, 84% within a ten mile, and 95% within a fifteen mile radius. In Essex county the site is not only charmingly located from the standpoint of view, but is within a fifteen cent, one hour trolley service directly to the institution from every point in the county. While the topography and arrangement of the highway, steam and electric railway systems of Middlesex county make it quite impossible to duplicate Essex county accessibility, yet the site secured for Middlesex is within a very brief trolley ride for over 50% of the population served, has three steam railroad lines nearby, and is almost equally accessible by a reasonably short trolley ride from the farthest western and northern points of the county. In addition, all four of these sites are well sheltered from the north winds, possess a sunny southern exposure, splendid views, and in three instances handsome pine groves, while the fourth site is already most artistically developed in the matter of lawns and many other improvements, including several substantial buildings well adapted to the institution's needs.

It has remained, however, for Bristol county to develop the most unique and, from the standpoint of future possibilities in socialized medicine, the most interesting extension of our county tuberculosis hospital law. Accepting with a most cordial spirit the provisions of the law, so far as they originally went, the town authorities of this county, almost in a body, appeared before the committees of this General Court and expressed a vigorous dissatisfaction with the law as applied to Bristol county conditions on the ground that it did not go far enough. Therefore, they sought and practically have already obtained, although the measure is not yet enacted, an amendment to the law, authorizing the commissioners of Bristol county to provide under the same administration, in addition to the tuberculosis wards, wards for contagious cases generally. So far, Bristol county authorities simply followed the precedent set by the provisions of the Barnstable County Infirmary law. But in advance of all Massachusetts precedents, by this amendment Bristol has also obtained authority to provide for the construction of additional wards in their county institution for those all too common cases seriously ill with advanced chronic diseases. I refer to cases of that type of chronic illness that are too ill to be properly cared for at home or in town almshouses, and yet are refused admission everywhere to general hospitals because they are not cases of acute illness.

In closing, I wish to express my personal appreciation of, and to go publicly on record as testifying to the admirable spirit of public service and humanitarian interest exhibited by our various boards of county commissioners in carrying out the provisions of this law, which has placed upon them, unsought and undesired, such arduous and exacting additional obligations.

WHAT BECOMES OF THE DISCHARGED CONSUMPTIVES?

BY MISS BERNICE M. BILLINGS, BOSTON,

Public Health Nurse; Trustee, Massachusetts Hospitals for Consumptives.

FROM 1906 to 1912 the Associated Committees of the Massachusetts Medical Society, the various local anti-tuberculosis societies and a few boards of health were the only agencies in the State with whom the State Tuberculosis Commission coöperated in regard to after-care work. In 1912 a large number of these agencies were inactive, with the result that there was little or no definite knowledge as to what became of the great majority of the discharged sanatoria patients.

The after-care work was started July 27, 1912, the experiment being financed by the Boston Association for the Relief and Control of Tuberculosis until February, 1913, when this work was taken over by the State. After a survey of the State, it was found that less than a dozen agencies were doing serious work in the following up of discharged patients or in the visiting of other consumptives in the community. In many instances private physicians were caring for patients, but the greater number of these who had called in a physician were already in the advanced stages before they felt the need of medical advice. When the work started the outlook was discouraging. Many of the patients were very ill and dying, while the members of the families were not alive to their responsibilities, both in the care of the patient and in the protection of others. There were comparatively few agencies ready to do follow-up work, while in addition it was hot weather, with all the attendant discomforts this brings to the sick poor. Very few of those who were thus exposed to the disease had been examined. In fact, I found that the one thing that I could say, which was sure to antagonize the majority of the adult members of the family was, "Have your children been examined?" This nearly always brought a response, "No! My children are perfectly healthy."

PLAN AFTER-CARE WORK.

In the beginning, the after-care work was not done on definite lines, as it is at present. It was at first more in the nature of a survey to find out the condition of the patients, the number who were under proper medical supervision, the agencies in the city or town in order, if possible, to bring about a close relation between patient, physician, and local resources. As time went on, through the efforts of the State Department of Health, the local boards of health, and private physicians, the agencies already in the various towns and cities began to assume some responsibility towards our ex-sanatorium patients.

After two years I was able to count 92 agencies who coöperated with our Board, while at present I am glad to say that there are 128 boards of health, associations, etc., covering 132 towns, on which I can rely for help.

DISPENSARIES.

In 1915 and 1916, with the opening of 56 dispensaries, I was relieved of home visiting in the larger localities, and was able to devote more of my time to the rural communities. At present my work is systematically arranged according to counties. This brings me into each county every four to six months.

AFTER-CARE LETTERS.

As time went on, a system of after-care letters was started. The object of these letters is to notify the agencies in a community as soon as the patient is discharged, and to give some detailed information regarding the discharged patient. These letters give the date of admission and discharge, the condition on admission and at discharge of each patient, along with suggestions as to further treatment.

HOSPITALS.

With the increasing number of local hospitals many very sick patients are transferred to these hospitals from the State sanatoria, so that they may be near their own homes, where they can be visited by relatives and friends. In addition to this, local authorities are finding it much more profitable to board a patient at some hospital, pending his admission to the state sanatorium, especially where our own waiting list is long. In this way such a patient, without adequate facilities for treatment at home, may be making steady progress, instead of entering the sanatorium in a hopeless condition. In the cities and towns with local dispensaries, the nurses in charge are much more alert in visiting and keeping in touch with discharged patients than before.

DISPENSARY NURSES.

When the follow-up work was first started it was not uncommon to have a nurse tell me that she had not visited the sanatorium patients, as they had already received training while at the sanatorium, and she felt that her time must be spent on those who were more in need of care. I am led to believe that, since more and more of the advanced cases go to local tuberculosis hospitals, the nurses have more time for follow-up work where it will do most good. The dispensary nurses have had many children who had been exposed to tuberculosis examined both by private physicians and at the local dispensaries. In cities where active work is being done by dispensaries, there has been a very marked increase in the number of patients who are sent to the sanatoria. In one city of 22,000 population, previous to the opening of the dispensary, five patients were admitted to the sanatoria from 1912 to 1915; since the dispensary opened, fourteen patients have been admitted to the sanatoria from 1915 to 1917.

The progress we are making in the cities and larger towns is also seen in the rural communities. In the small town I find patient and family more interested in the intelligent care of patients and the protection of the family, and they are more willing to consider sending their children to private physicians for examination.

VISITING NURSE.

The visiting nurse deserves her share of praise for some excellent work in the small communities. There are many small towns in the State where I have perfect confidence that a discharged sanatorium patient will be placed under supervision almost immediately after returning to his home. In the beginning of the work it was said that many of the patients would evade a visitor, that patients objected to being visited, feeling that their personal liberty was in danger, etc. This has not been my experience. In 1912 there were a few patients who thought that a State visitor meant simply a gatherer of statistics, but when the nature of the work was understood I was well received. Today, in the majority of homes, I am expected, as they hear at the sanatorium that a visitor will come. This past winter I have been especially well received. Hot drinks and food were offered me, and instead of asking, "Why is a visitor sent to me?," I have been asked, "Why did you not come before? we have been expecting you."

UNKNOWN PATIENTS.

One reason why we find it hard to locate a patient is not because the patient wishes to evade a visitor, but because a different way of living has been taught at the sanatorium, and the patient is not satisfied with his old home. This often means a change to a different part of the town, and sometimes a change of town, or from a crowded part of a city to a rural community. Where information is given to me by a city nurse that a patient is in a small town many miles away, I write the board of health or nurse in that village, giving what information I possess. I then visit this patient as soon as I am in that section of the State. My work means many long walks and many miles of driving over good and bad roads, in one instance thirty-five miles in one day, in all sorts of weather—to say nothing of long train and trolley trips. It has been my policy that if our patients and their families could go over bad roads there was no reason why I could not at least attempt it, and although a few times the auto was stuck, except for making one miss a train, there was no harm done and the patient was seen.

COÖPERATION OF LOCAL AND STATE AUTHORITIES.

In my work I have been greatly helped by the district health officers, boards of health, private physicians and nursing agencies, and it is to this close coöperation that we must look for our future success in the work.

The following figures, representing a study of 1056 patients discharged from the State sanatoria between May 1, 1912, and April 30, 1914, will prove to you that not all discharged sanatoria patients die or are unknown.

CONDITION ON ADMISSION.

Incipient, 181 = 17%.
Moderately advanced, 379 = 36%.
Advanced, 489 = 46%.
Not examined, 7 = 6%.

CONDITION ON FIRST VISIT.

Good condition, 303 = 29%.
Living, 531 = 50%.
Dead, 120 = 11%.
Left State and unknown, 102 = 10%.

PRESENT CONDITION.

Good and working, 312 = 30%.
Living, 121 = 11%.
Dead, 485 = 46%.
Left State and unknown, 138 = 13%.

EARNINGS OF PATIENTS EACH WEEK.

137 men earn $1,817.
150 women earn $1,179.
Total, $2,996.

As so many of these patients (40%) were in the advanced stage of the disease, and as there was so little adequate supervision during the first two years, it seems to me that we have good reason to feel encouraged, especially as patients are remaining longer at the sanatoria, and as there are so many more agencies doing really good work in supervising patients immediately after they leave the institution.

CONVEYANCE FOR NURSES.

There is still great need for improvement in cities, towns and villages. Great stress has always been laid on the fact that nurses doing follow-up work should be properly qualified to fill the position, both in personality and training. In the cities one of the very great drawbacks to effective work is the fact that the nurse may be ever so capable and conscientious, but if her work is spread too thin it is next to impossible to get good results. We have in one of our cities a nurse with a visiting list of over 200 patients with their families, 100 of these being open, active cases. This nurse is dependent upon trolley for transportation. It would be but good business to provide a nurse with a Ford under such circumstances as this. No one in these days would think of having the heads of other city departments use the trolley, and it would seem to me the same idea applied to a nurse. Can we wonder that after a few years of such hard work, a nurse is unable to keep up this strain and resigns! After long experience, she is much more valuable to the community than ever before. The members of the Board which employs her should realize this, and that as the work grows, more help is needed.

WORK OF VISITING NURSE.

In some towns of 15,000 the one visiting nurse is expected to do bedside nursing, follow-up work for tuberculosis patients, and any amount of relief work. It is impossible to do so much and do it well. In one town of 15,000 there should be at least three nurses, if the school work is to be added to the list; with less than this the work will never grow and develop as it should. The smaller communities need a visiting nurse.

It seems to me the members of this Anti-Tuberculosis League can be of very great assistance in moulding public opinion and making it possible to develop this after-care work still further.

Annual Report of the Massachusetts Anti-Tuberculosis League—1917.

By Seymour H. Stone, Boston,
Secretary.

LEGISLATION.

This year the League has considered 36 legislative bills, as compared with 41 of the previous year.

Most of last year's bills were of minor importance, with the exception of the bill, which became a law, requiring counties to construct tuberculosis hospitals for patients in communities of less than 50,000 inhabitants, and bills, which were not passed, that would have made it possible to isolate the wilfully careless and incorrigible consumptive.

The bills pertaining to tuberculosis now before this year's Legislature, with the exception of one on wilfully careless and incorrigible consumptives, which bids fair to go through the Legislature, are also of minor importance, and as a rule do not affect the State policy in the care of the tuberculous.

It is necessary, however, for someone to keep in touch each year with the measures presented to the Legislature, not only to watch for those that might interfere with the campaign against the disease, but also to be ready to secure support for those that will be helpful, as well as to keep the anti-tuberculosis associations and other interested agencies informed.

PUBLICITY.

Literature.—During the year 12,000 pieces of literature have been distributed. Of this number, 4450 were press bulletins of the National Association, sent to over 200 newspapers in the State, the balance being educational circulars and pamphlets of several kinds, circulars in regard to legislation, programs of meetings and annual reports.

Lectures.—A total of 14 talks has been given, 10 by the Secretary and 4 under the auspices of the Committee on Rural Tuberculosis. These talks have been on Tuberculosis, Open-Air Schools, and Tuberculosis in Cattle, and many have been illustrated.

The attendance has totalled about 1400 persons.

Slides and Films.—In addition to the illustrated talks, our slides have been loaned to other speakers, who have reached a total of about 1300 people.

Two films belonging to the Boston Association, "The Awakening of John Bond" and "The Great Truth," have been used on a number of occasions in League territory.

Exhibits.—The League has taken part in 13 "Health Weeks" in the State by loaning its small tuberculosis exhibit. Mention should be made here of the coöperation on many of these occasions of the Health in Industry Committee of the Boston Association, in giving the use of its interesting exhibit pertaining to the health of employees in manufacturing and mercantile establishments; also the loan on several occasions of the Boston Association's "Open-Air School" exhibit.

It is estimated that these exhibits have been seen by a total of 62,500 people

RURAL TUBERCULOSIS.

In May, 1916, when it seemed probable that the legislative bill requiring counties to provide tuberculosis hospitals for communities under 50,000 inhabitants would become a law, the League appointed a committee on rural tuberculosis, for the purpose of arousing an interest in the problem in rural communities. Later an officer of the State grange was added to the committee, and the coöperation of the agricultural college and grange secured.

The committee first made a study of the death rate per 100,000 population from pulmonary tuberculosis in the State for the ten years, 1905 to 1914. It was found that the average death rate in the entire State for this period was 134.83. For cities of 50,000 inhabitants and over, the rate was 150.89. For the rural communities (population 2500 or less), including the three towns of Lakeville, North Reading and Rutland, where State sanatoria are located, the rate was 150.26. For the rural communities, excluding Lakeville, North Reading and Rutland, the rate was 99.88.

The committee finds that deaths occurring in State institutions are charged up to the town in which the institution is located, instead of to the city or town from which the patient came, and it is, therefore, impossible to arrive at an accurate death rate in either cities or towns. This difficulty should be remedied. An article and chart on these facts were prepared and printed in the Monthly Bulletin of the State Department of Health.

The committee has also prepared a lecture on "Tuberculosis in Cattle as an Economic and Public Health Problem." This lecture is so arranged that it can be illustrated with 19 slides or used without slides.

A letter descriptive of the lecture was sent to the 200 granges in the State, offering the use of the lecture free of charge, and stating that it is so arranged that a member of the grange can read it, or that the League will try to furnish a lecturer, if necessary. Up to date it has been used four times, the lecture being twice delivered by the chairman of the committee, Prof. Hilliard.

REPORTING CASES.

In 38 of the cities and towns in the State there is an organization affiliated with the League. The Committee on Reporting Cases made a study of the number of cases and deaths reported in each of these communities for the seven years, 1908 to 1914. This study shows a neglect in reporting cases in many of these cities and towns,—in fact, in some of them the number of cases reported is *less* than the number of deaths reported.

This study was sent to each one of these organizations with the suggestion that they take such action as might remedy this neglect.

A number of these organizations replied, stating they would take the matter up with the local board of health. The secretary of one wrote that for several years she had seen personally every doctor in town in regard to making reports of cases. The president of another organization said he would write to every physician in his city if necessary, and the State Department of Health said they would take the matter up through their district health officers.

The committee also compiled statistics on the reporting of cases and deaths in Massachusetts for last year,—January, 1916, to January, 1917,—as follows:

Reports of Cases and Deaths in Massachusetts
January, 1916 to January, 1917.

Cities and Town:	Pulmonary		Other Forms	
	Cases	Deaths	Cases	Deaths
200,000 and over (Boston)	2256	1111	207	*127
150,000 to 200,000 (Worcester)	372	201	36	70
100,000 to 150,000	1476	743	111	158
50,000 to 100,000	834	460	87	102
25,000 to 50,000	1108	469	116	123
10,000 to 25,000	718	407	42	82
5,000 to 10,000	551	404	41	53
2,500 to 5,000	128	142	10	29
2,500 and under	106	359	5	36
Totals	7549	4296	655	780

* First five months not reported.

RED CROSS SEALS.

At the end of last year's Red Cross Seal campaign, a specially appointed committee drew up suggestions for the expenditure of the money raised by the sale of seals, and sent it to each agency in the State for its guidance.

The returns for this year's campaign are all in, and the total number of seals sold is 2,816,241, valued at $28,162.41. This is an increase over last year of 497,645 seals.

After deducting the amount due the National Association,—$2,775.43, and the expenses of the State campaign, $837.87, $124.55 of which was contracted by the League,—we have for the use of the 94 organizations engaged in the fight against the disease in the State, $24,549.11. Of this amount, $2,249.05 is the League's share. This is the main source of income for the League, as it cannot solicit funds in communities where anti-tuberculosis organizations are located.

INSTRUCTION ABOUT TUBERCULOSIS.

There is a State law which requires that instruction in the prevention of tuberculosis be given in all public schools, but many tuberculosis workers throughout the State believe that very little attention is paid to this law.

In view of the general belief that tuberculosis in most instances begins in childhood, and that it is possible to impart to children much valuable information that may help in preventing infection, we hope that school committees, if they are not already doing so, will see that more attention is paid to this subject.

Last year the State Department of Health and the State Board of Education worked out a coöperative plan for the medical inspection of school children. This plan also included instruction in hygiene and preventive measures. A bill to provide the necessary funds was presented to the Legislature, which, however, failed to comply with the request of the Departments. We hope another effort will be made, and if so, that it will be supported by all the anti-tuberculosis associations in the State.

The anti-tuberculosis associations might very well find out what is at present being done by the school authorities in their own community in regard to school instruction upon the prevention of tuberculosis.

LOCAL ASSOCIATIONS AND AFFILIATED SOCIETIES.

The following organizations have been added to the membership of the League during the year:

1. Berkshire County Red Cross Chapter.
2. Brockton Visiting Nurse Association.
3. Lowell Anti-Tuberculosis Council.
4. Danvers Visiting Nurse Association.

This brings the total organization membership up to 40.

MISCELLANEOUS.

The League took an active part in urging various communities in the State to send to the National Tuberculosis Association such evidence as they had that would assist in locating the Community Tuberculosis Experiment in this State. This interesting experiment, under the direction of the National Tuberculosis Association, has been located at Framingham and is now under way.

In order to coöperate with the movement to discourage the sending of tuberculous patients with insufficient funds to the West and Southwest, the League has signed the transportation agreement of the National Conference of Charities and Correction. The League has also urged other anti-tuberculosis associations in the State to sign this agreement.

THE PROBLEM.

What is the problem in this State, and what equipment have we to handle it?

With a record last year of 5102 deaths from tuberculosis, all forms, 4312 of which were pulmonary, we still have in this State a big problem before us. The total number of cases reported for the same period was 8537, of which 7878 were pulmonary. Using the method of estimating the number of persons in a community with tuberculosis adopted by the Tuberculosis Commission of 1910, we have in the State today about 30,000 persons ill with the disease.

To care for these patients we have, all told, 58 public and private hospitals, sanatoria and boarding houses, with a total of about 3351 beds. This same tuberculosis commission states that we should have between 5000 and 6000 beds. The new county tuberculosis hospitals should add several hundred beds. The balance needed must be secured with the aid of the State departments, the 50 anti-tuberculosis organizations and committees, and of others interested in the problem.

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Book Reviews.

Health in the Camp. By H. R. Kenwood, Temporary Lieutenant-Colonel, R. A. M. C. Toronto, Canada. 1916.

A small brochure of fifty-eight pages has been written by this author to provide adequate information to the soldier on all important topics of camp sanitation and personal cleanliness. These are discussed in a simple, untechnical manner and, while but brief space is given to each subject, enough is said to impress upon the non-medical mind the importance of care and thoroughness in sanitary matters. The book can easily be carried in the pocket and the information therein contained should be a part of the equipment of every soldier.

Practical Urinalyses. By B. G. R. Williams, M.D., Director Wabash Valley Research Laboratory. Illustrated. C. V. Moseby Co. 1916.

The author of this book states that this manual is not to be regarded as anything aiming at completeness, but as a guide for the student and practitioner in those diagnostic matters likely to be encountered from day to day. Much emphasis has been placed upon findings often considered minor and but little attention given to questions which might interest the specialist or research worker. These outlines have been prepared in the hope of emphasizing many of the little points which are often lost in the complexity of the large book. The book contains one hundred and forty-two pages.

Clinical and Laboratory Technic. By H. L. McNeil, A.B., M.D., Adjunct Professor of Medicine and Instructor in Physical Diagnosis, University of Texas Medical School, Galveston, Texas. Illustrated. St. Louis. C. V. Moseby Co. 1916.

This volume of eighty-eight pages is divided into three parts. Part I deals with history taking, Part II with the physical examination and Part III with the common laboratory methods used in diagnosis. This latter section includes examination of the urine, the blood, sputum, gastric contents, duodenal contents, feces, spinal fluid, the serous exudates and transudates, the Wassermann reaction and the gonococcus fixation test. The Appendix lists the common stains used in the laboratory. All the laboratory tests mentioned, as well as the routine methods described for history taking and physical diagnosis are in common use in the medical clinics of the John Sealy Hospital. The volume itself was originally designed for the use of advanced students in the Medical Department of the University of Texas Medical School.

The Institutional Care of the Insane in the United States and Canada. By Henry M Hurd, William F. Drewry, Richard Dewey, Charles W. Pilgrim, G. Alder Blumer and T. J. W. Burgess. Edited by Henry M. Hurd, M.D., LL.D. Vol. III, illustrated. Baltimore: The Johns Hopkins Press. 1916.

This bulky third volume continues and completes the third part of the elaborate work undertaken by the Johns Hopkins Hospital to present the history and present methods of institutional care of the insane on this continent. It deals alphabetically with hospitals for the insane in the states from Montana to Wyoming, inclusive, and in the dependencies of the United States, namely: Alaska, Hawaii, the Philippine Islands and Porto Rico. It is illustrated with twenty-four full-page plates representing the grounds and buildings of various institutions. The volume consists of 880 pages and completes a valuable work of compilation of which the usefulness to specialists as a book of reference is undoubted.

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ERNEST GREGORY, *Manager,*
126 Massachusetts Ave., Corner Boylston St., Boston, Massachusetts.

THE WAR MEETING OF THE CLINICAL CONGRESS.

THE meeting of the Clinical Congress of Surgeons in Chicago was notable for many reasons. It was honored by the presence of Secretary Daniels, who spoke at the first session, and of Surgeons-General Gorgas and Braisted, who attended almost all the evening meetings, and made several addresses. Much of the success of the Congress was due to the presence of Sir Berkeley Moynihan, whose service at the front, beginning the day after war was declared, and his later important position in charge of the war hospitals through a large district in England, has placed him in a position to add much to our knowledge of the contributions which British and French surgeons have made to war surgery, and whose graceful diction and unusual command of the English language especially fit him to impart what he had seen and done. Major George W. Crile had been given a furlough and he crossed the submarine-infested ocean, in order that he might give his message to the Congress. He spoke most interestingly in the discussion of war wounds and their treatment, agreeing in the main with Sir Berkeley, that while the various special methods, such as the Carrel-Dakin, the "Bipp" method of Rutherford Morison, Sir Almroth Wright's methods and others, all contained valuable points, the first essential to a rapid convalescence was access to a competent surgeon in a properly equipped hospital near the front, who could, if possible, excise the wound of its contaminated contents, and dress it by suture. If this were done early enough, the antiseptic treatments, some of them rather complicated, would often be rendered unnecessary. Dr. Crile had many suggestions for the organization of our hospitals behind the lines, and the utilization of the personnel, which will undoubtedly prove of value in the organization of our Medical Corps.

Among the principles brought out by Sir Berkeley were the demonstrations by experience on the British and French fronts, that wounds of the chest and abdomen would better be operated upon as near the front as possible, namely, at the casualty clearing stations, and that injuries to the skull and brain were better sent to the base hospitals, and attended to more at leisure, after neurological consultations and more deliberate study.

Sir Berkeley's paper on "Chest Surgery" was especially notable. Among the principles brought out by the war was the very important one that open lacerated wounds of the chest wall were best excised, cleansed and closed by suture, if possible, the same principle applying to wounds of the knee-joint, as brought out in a paper on this subject by the same distinguished author, which will be published in an early number of this JOURNAL. Penetrating bullet wounds of the chest and lung often did well with no other treatment than cleansing the wounds and immobilization. Small projectiles lodged in the lung often gave no trouble and might be safely left.

Hemothorax, if the collection of blood was small and sterile, often took care of itself, and if large, might be relieved by one or more tappings. Infected hemothorax required radical surgery. The path of missiles, bits of shell-covering, etc., through the lung was curiously straight, and not tortuous, as it so often is in the other soft tissues, but the passage through any one part of the lung often caused pathological changes at distant portions of this lung, and even of the lung on the opposite side.

Large projectiles lodged in the lung, or smaller ones which caused trouble, were safely and satisfactorily removed by an incision five or six inches long over the fourth rib. The rib might be removed after clearing off the pleura, or might be sectioned at the anterior end, bent back during the operation, and replaced. The pleura being incised, it was easy, through this incision, to draw the lung out onto the chest wall, and foreign bodies could thus be felt with surprising ease, removed, and the incisions sutured with mattress sutures of catgut, as one would suture a liver. The lung being returned, a little ether was poured into the cavity, and the pleura sutured. An aspirating needle introduced through the 8th or 9th interspace allowed the escape of the ether vapor, and was followed by the expansion of the lung. The next day the average patient was no worse off than is the case after the removal of the appendix in the same interval, and recovery was the rule.

During the Congress the Committee on State Volunteers held many important meetings, and steps were taken toward the organization of a senior medical reserve corps, composed of men who, on account of age or other valid reason, were not eligible for the Medical Officers Reserve Corps.

Congress was memorialized regarding the necessity of universal military training for our youth.

Within brief limits it is impossible to set forth the many activities of the Congress, and for patriotic reasons all those who were unable to be present should read in the Transactions when published.

THERAPEUTIC VALUE OF FOOD ECONOMY.

One of the many good results that may ensue out of the "unmitigated evil" is the food stringency that is rendered necessary as a part of the general economy enforced in war times. For those who view the prospect of food shortage with a great deal of alarm, attention can be called to the fact that after three years of warfare under rationing, the fighting intensity is undiminished. On the contrary, every one is the better for it. Even aside from the wrong of waste, it is quite well understood that overeating lays a great deal more stress on the system in the conversion and excretion than is intended. Not only is energy wasted in taking food in and out of the body,—food that the body does not need,—but a great deal of it remains to act as a toxic agent. Besides, much of this energy so wasted could be used by the body in utilitarian pursuits. That the production of toxic products as a result of overeating is at the bottom of many of the constitutional or metabolic disturbances needs no additional proof. Boas (*Berliner Klinische Wochenschrift*) holds that it is the food restriction that is to be credited with the marked decrease in the incidence of diabetes in Germany. It helps materially to bear out the principle in Allen's treatment of diabetes by periodic starvation, and by maintained restriction in the quantity of food consumed. Gout, arteriovascular and renal conditions are, likewise, concerned in excessive food intake. They are certainly much benefited by restriction in this intake. Chittenden has long ago demonstrated that every individual consumes about twice as much food as the body can actually utilize. It needs no great stretch of imagination to see that half the food consumed in this country would pretty nearly feed whole nations. No one now rationally advises forced feeding in malnutrition, tuberculosis, etc., because the organism cannot assimilate more than an amount equal to its physical capacity. An excess can only do harm. Instead of forced feeding, it must be adequate feeding—adequate under the particular circumstances. There is often more harm in overfeeding than in underfeeding. It is comparatively seldom that the physician is called upon to prescribe for the effects of underfeeding, but much of his practice is taken up with the bad effects of overfeeding.

A diet restricted as to quantity but not as to variety is more satisfactory than a diet unrestricted in quantity but restricted in variety. If the variety is limited, the quantity consumed is by so much larger because the body tries to get out of this one food as much of the necessary food elements as possible. Hunger is sooner appeased by a mixed diet of small total quantity than otherwise. No quantity of food helps unless it contains the necessary food elements, especially vitamines. A mixed diet even of starvation quantity satisfies the needs of the body more adequately than one of less variety and not so apportioned. The malnutrition of the poor is not due to underfeeding in respect to quantity, but rather in respect to variety and quality. The less the variety the greater the quantity consumed. Both as a measure of economy in food, and in order to get all the necessary food elements in the minimum amount of food—the smallest total quantity on which the body can normally subsist—it is necessary to arrange the dietary according to a standard table of dietetics and apportioned according to sex, age, weight, physical condition, etc. Any other economy based upon a haphazard attempt to restrict the amount of food consumed must result in malnutrition, constitutional disturbances, and must defeat the very purpose of economy. The physiologic needs of the human body with respect to food are pretty definitely defined. This is the time to follow out intelligently the scheme of physiological feeding.

MEETING ON WAR SURGERY.

The meeting on War Surgery of the Boston Medical Library and Suffolk District Medical Society, which will be held in the Medical Library on Nov. 21, will, it is hoped, be addressed by Col. Thomas H. Goodwin, who comes to this country with the British Mission, and is now on duty at the Surgeon-General's office in Washington, and by Colonel C. Dercle, who represents the French Surgeon-General in the same capacity. Physicians from Massachusetts and New England are cordially invited, and a large attendance is especially desired, in order to stimulate enlistment in the Medical Reserve Corps.

MEDICAL NOTES.

Graduation of New Hampshire Nurses.—The New Hampshire State Hospital Training School for Nurses graduated on October 24, eleven nurses. Dr. Charles P. Bancroft made an address at the graduation exercises.

Medical Meeting.—The Department of Labor and Industry will hold its Fifth Conference of Industrial Physicians and Surgeons at the State Capitol, Harrisburg, Pa., on Nov. 20, 1917. A most cordial invitation is extended to all physicians to be present and take part in this meeting.

The morning session will be devoted to a consideration of the medical and surgical problems of several of the largest industries representative of Pennsylvania.

The afternoon session will take up the question of industrial diseases. At this meeting Dr. T. Grier Miller and Dr. Henry F. Smyth of the Occupational Disease Clinic of the University of Pennsylvania will make public, for the first time, the results of some of their investigations carried on during the past year.

The program throughout is one of unusual interest and timeliness and one that will appeal to every physician. Copies of the completed program may be obtained by addressing Dr. Francis D. Patterson, Chief, Division of Industrial Hygiene and Engineering, 506 Kunkle Building, Harrisburg, Pa.

The Fifth Annual Welfare and Efficiency Conference of this Department will be held on the two days succeeding the Physicians' Conference. Subjects of more general interest, but none the less vital, will be discussed at these meetings.

American Association of Electrotherapeutics.—The association formerly known as the American Electro-Therapeutic Association has changed its name to the American Association of Electrotherapeutics and Radiology, and has chosen as its president Frank B. Granger, M.D. Other officers are as follows: Vice-Presidents, V. C. Kinney, M.D., Wellsville, N. Y.; William L. Clark, M.D., Philadelphia, Pa.; William Martin, M.D., Atlantic City, N. J.; Alfred T. Livingston, M.D., Jamestown, N. Y.; M. G. Campbell, M.D., Atlanta, Ga. Treasurer, Emil Heuel, M.D., New York City. Secretary and Registrar, Byron S. Price, M.D., New York City.

Clinical Congress of Surgeons.—At the eighth annual session of the Clinical Congress of Surgeons, held in Chicago during the week of October 22, Surgeon-General Gorgas stated that seven physicians and surgeons are being provided for each 1000 men of the American forces at the front. Great hospitals are being erected in France, he said, with one bed for every five men, or 200,000 beds. Provision also is being made at home for educating the maimed and crippled soldiers and sailors to some suitable trade.

A conference was held by surgeons representing various States, and tentative plans were made for listing every medical man for service. It was reported at the conference that the Medical Officers' Reserve Corps still lacks 8000 of filling its ranks. The enrollment now is said to be about 14,000.

Secretary Daniels of the Navy, in addressing the Congress, spoke of the evils of venereal disease in the Army and Navy. He stated that, during the last statistical year, men of the American Navy lost 141,378 days' sickness from a small group of absolutely preventable diseases. This means that every day throughout the year there were 456 men disabled. Add to that number those required to care for the disabled, and we have enough men on the noneffective list each day to man a modern battleship.

"In the Navy in 1915 there were admitted for treatment of such diseases 112 persons in every 1000 and in the Army 84 for every 1000, the number in the Army having decreased from 145 to the 1000 after the passage of an act stopping the pay of all soldiers admitted for treatment. The new Navy law stops the pay of men so afflicted, and will probably reduce the number to the Army ratio.

"In civil life, the number afflicted is quite as large proportionately as in the military service. It has been printed that Hecht of Vienna stated that at one time the equivalent of three entire Austrian divisions of 60,000 men was under treatment, while the German army in Belgium, representing only a small part of the total German forces, is reported during the first five months of its occupation to have furnished 35,000 such patients. Canadian and Australian officers have been depleted by the ravages of syphilis. The late figures from the British Army gave 78,000 cases and all other countries have also been weakened.

"The time has come to realize that this subtlest foe of humanity must be conquered and it cannot be conquered by denying its existence, saying it is a necessary evil or applying palliatives.

"It is deadlier than smallpox or cancer or tuberculosis. A Canadian authority says:

"'Its ravages today are more terrible for Great Britain and Canada than Vimy Ridge, the Somme and Lens.'"

An outline of the rules to govern the Army medical service was announced by Surgeon-General W. C. Gorgas, U. S. A., who has decided that the manual of 1914 will be in force with the medical units in France.

This means that the entire corps will be mobilized into three departments—medical, surgical and laboratory. In each department will be many specialists, but they will not be mobilized into a separate division. One general directing head is to supervise each of the three departments.

Honorary fellowship was conferred upon the following distinguished physicians: Surgeon-General Rupert Blue, United States Public Health Service; Surgeon-General William C. Gorgas, United States Army; Surgeon-General William C. Braisted, United States Navy; Colonel T. H. Goodwin, British Medical Corps; Colonel C. Dercle, French Medical Corps; Sir Berkeley Moynihan, Leeds, Eng.

WAR NOTES.

Sickness in Army Camps.—Report from Washington of the health of the soldiers in the army cantonments states that the average rate of sickness was 19.1. Camp Sheridan reported the smallest number of cases and Camp Devens took second place.

Base Hospital at New Jersey.—One of the finest base hospitals yet erected was formally opened at Camp Dix, Wrightstown, N. J., on October 23. The hospital has accommodations for 1500 patients and the two hundred buildings which comprise the hospital extend over an area of sixty acres.

Surgical Dressings Committee.—Upon the affiliation of the Surgical Dressings Committee with the American Red Cross, Mrs. F. S. Mead, Chairman of the National Civic Federation, who has also been Chairman of the Surgical Dressings Committee, has resigned that position, and Dr. John W. Eliot will succeed her. He will have as assistants Mrs. Charles Allen Porter and Mrs. Henry Lyman. The importance of the work of the Surgical Dressings Committee cannot be overestimated. It is now shipping one million dressings a month, and about one-quarter of the surgical dressings sent from America have been furnished by this committee and shipped from the workroom of the Peter Bent Brigham Hospital. Mrs. Mead, though retiring as chairman, continues as a member of the executive committee. The financial advisory committee will, as formerly, consist of Walter C. Baylies and George Wigglesworth, besides Dr. Eliot, and the surgical advisory committee will remain unchanged. This consists of Drs. Harvey Cushing, John W. Eliot, Robert B. Greenough, Charles Allen Porter and Hugh Williams.

War Relief Funds.—On Nov. 4, the totals of the principal New England war relief funds reached the following amounts:

French Wounded Fund	$284,470.03
Armenian-Syrian Fund	242,528.07
Surgical Dressings Fund	129,239.99
French Orphanage Fund	125,780.36
Serbian Distress Fund	124,384.17
Polish Fund	88,522.86
Italian Fund	50,742.94
Russian Refugees Fund	44,287.74
La Fayette Fund	32,811.03
War Dogs' Fund	1,752.25

BOSTON AND MASSACHUSETTS.

Hospital Bequest.—The Springfield Hospital, Springfield, Mass., receives, as a residuary legatee under the will of the late Sherman D. Porter, a share of $14,400, dividing this sum with the town of East Longmeadow.

Tuberculosis in Boston.—A survey of the number of cases of tuberculosis in the City of Boston since January first, has been made by the Health Department and the results are gratifying. Excluding cases reported more than once, the total number of cases is 2136. This is the lowest number on record. During this time the department's inspectors have made 8000 visits to the cases carried on the registry. One of the best means of preventing the spread of tuberculosis is that of cleaning and keeping clean the back alleys. The Health Department has done much work during the summer and fall, even though the number of inspectors was much too small for the purpose. Hundreds of notices were sent to property owners that their alleys were a health menace, and, in a majority of cases, the work of cleaning was carried out promptly and satisfactorily.

Boston Death-Rate for Week Ending Oct. 27, 1917.—During the week ending October 27, 1917, the number of deaths reported was 203 against 227 last year, with a rate of 13.71 against 15.57 last year. There were 23 deaths under one year of age against 38 last year.

The number of cases of principal reportable diseases were: Diphtheria, 93; whooping cough, 13, scarlet fever, 26; typhoid fever, 7; measles, 34; tuberculosis, 53. Included in the above were the following cases of non-residents: Diphtheria, 15; scarlet fever, 9; tuberculosis, 6.

Total deaths from these diseases were: Diphtheria, 3; measles, 2; tuberculosis, 16. Included in the above were the following non-residents: Diphtheria, 1; tuberculosis, 2.

A Typhoid Carrier.—The following history of a typhoid carrier is given in the September issue of the *Massachusetts Public Health Bulletin:*

"In June, 1915, the proprietor of the L. farm in Gardner started a milk route. By August typhoid fever had occurred in three of the six families supplied by this farm.

During 1916 there were two more cases on this same route. In both years it was suspected that a typhoid carrier was employed on the farm. However, Widal tests and examinations of feces and urine from every one on the farm were negative.

In April, 1917, there was an explosive outbreak of typhoid fever numbering 20 cases, all of which were on the route of K., to whom L. sold his milk for distribution. A careful investigation by the State Department of Health, together with the local board of health, brought forth the fact that the proprietor of the L. farm had typhoid bacilli in his feces, although his blood was negative by the Widal test, and he denied ever having had typhoid fever. The sale of milk from this farm was prohibited.

On May 6, L. was again licensed to sell milk, with the agreement that he personally would have absolutely nothing to do with the handling of the milk or the utensils used.

In August, beginning the 16th of the month, 54 cases of typhoid were reported, many of which had their onset several days before a physician was called. All of these cases occurred on the route of the distributor, who obtained milk from nine dairies, including that of the L. farm. The sale of milk from all of the dairies concerned was stopped at once. Subsequently, Widal tests and examinations of the feces and urine of persons at eight of the dairies were negative. The ninth dairy was on the L. farm, being the same source of supply which was under suspicion in 1915 and 1916, whose proprietor was found to be a carrier in April of this year. Thus L. was proven to be an intermittent carrier with a negative Widal test.

The conclusion to be drawn is that no known typhoid carrier should be permitted to produce milk for sale or distribution, or to engage in any way in the handling of milk or other food products."

Hospital Bequests.—By the will of the late Marie Antoinette Evans, widow of Robert D. Evans, the Robert Dawson Evans Memorial for Clinical Research and the Massachusetts Homeopathic Hospital of Boston share in a residue of the estate, which may amount to $2,000,000. The Harvard Dental School receives a bequest of $25,000.

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Obituary.

JAMES HOMER DARLING, M.D.

Dr. James Homer Darling, one of the oldest practising physicians in Connecticut and dean of the medical profession in Hartford County, died at his home in Thompsonville, Conn., on October 18, 1917. He had been in failing health for some months.

Dr. Darling was born in Cambridge, Lamoile County, Vt., July 25, 1838, a son of Hayes Pope and Aphia (Hubbard) Darling, natives of Pomfret, Vt., and Weare, N. H., respectively. The father was a hatter but in later life engaged in farming in Cambridge, Vt., and died in Johnson, that state, December 22, 1843. Dr. Darling spent his childhood in his native town, and his academic education was received in Northfield Academy. In 1856, he began the study of medicine in the office of his brother, Henry H. Darling, in Charlton, Mass., and in 1858 attended lectures in the Vermont Medical College in Burlington, from which institution he was graduated in 1859. Immediately following his graduation he began the practice of medicine in Rindge, N. H., remaining in that place until November, 1862, when he received the appointment of assistant surgeon of the 51st Massachusetts Volunteer Infantry by Gov. John A. Andrew, and remained in that service nine months.

In December, 1863, he was appointed acting surgeon in the United States Navy and served for two years in the East Gulf squadron. He received an honorable discharge in 1865, and began the practice of medicine in Keene, N. H. He remained there until 1875, when he removed to Thompsonville, Conn. Here he soon established himself in a large practice, which he retained up to the time that his health failed him.

The passing of Dr. Darling removes from Thompsonville one of its most respected and beloved citizens. He was a member of the Army of the Potomac and of the Army and Navy Club of Connecticut. He also had membership in the Hartford County Medical Association and was for many terms surgeon-general of the Samuel Brown Grand Army Post. He is survived by his daughter.

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Miscellany.

SECTION OF SURGERY OF THE HEAD.[*]

The medical care of one million troops in the field will require the services of several thousand physicians. The Medical Corps of the Regular Army, one of the most carefully selected organizations of medical men, was not sufficient for the present emergency. Primarily, the corps was augmented numerically by the organization of the Medical Reserve Corps. By a careful distribution of the men of the regular corps, the influence of their long and thorough training permeated the new organization, forming a completed organization in which those inexperienced in military medicine were safely supported. The Medical Reserve Corps organized, the profession realized its responsibility and, in consequence, commissions were issued to a large number of physicians throughout the country.

Many of the members of the Medical Reserve Corps were detailed to various medical officers' training camps for the purpose of intensive technical and physical training. This assignment afforded the officers opportunity to obtain physical fitness and sufficient military experience to qualify them as regimental, ambulance, and sanitary officers. It also permitted the weeding out of the physically unfit, but did not afford opportunity to classify officers according to their professional attainments. The details of this training so consumed the time of instructors and students that it was impossible to judge of the fitness of the officers for special work.

Recognizing the need for specialists, the Surgeon-General, with the General Medical Board of the Council of National Defense, through the great medical bodies of the country, established in his office sections for the care of the various medical and surgical specialties. Physicians of high professional rank, many of them authorities in their chosen field, and in civil life acknowledged leaders, were selected to direct these sections. This plan of classifying the personnel of the military medical corps, a new departure, is another example of the far-sighted preparation now so conspicuous in every branch of the service.

The various needs of the service demanded the establishment of eight sections, namely, Internal Medicine, General Surgery, Orthopedic Surgery, Venereal, Skin and Genito-urinary Surgery, Surgery of the Head, Laboratories and Infectious Diseases, Neurology, Psychiatry and Psychology, and Roentgenology.

The section of Surgery of the Head, made up of the sub-sections of Ophthalmology, Otolaryngology, Plastic and Oral and Brain Surgery, developed from a similar organization of the General Medical Board of the Council of National Defense.

In the office of the Surgeon-General, the section as a whole is under the direction of a Lieutenant-Colonel of the regular corps, and to each sub-section is assigned a member of the Medical Reserve Corps. These officers act in an advisory capacity in the selection of personnel, etc., and outline the policies under which the work is to be carried on.

Those in charge of Ophthalmology and Otolaryngology found their chief function in acquainting the physicians of the country with the fact that the Surgeon-General was desirous of using the specialist, as far as possible, in his specialty, and in listing the names of the physicians who came into the Medical Reserve Corps with a view to work in their specialty. They have aided the Surgeon-General to select and assign the proper personnel to the base hospitals at the various cantonments. At the present moment, the selection of the personnel for the base hospitals, which are destined eventually for duty abroad, engages their attention.

The officers in charge of the sub-section of Plastic and Oral, and Brain Surgery were confronted with the fact of the great scarcity of surgeons familiar with the special technic so necessary in the successful management of injuries of the face and head. It was necessary to use this small group of qualified surgeons to instruct others, and thereby build up a corps of sufficient size to enable assignment of specially trained surgeons to the various hospitals. A conference of the recognized authorities, held in Washington, developed the fact that the large universities were willing to assist in this professional training by tendering to the Surgeon-General the facilities of their medical departments and hospitals.

Schools, with teaching staffs of surgeons versed in the details of special branches, were established. The course of instruction includes anatomy, physiology, symptomatology, operative exercises on the cadaver and animals, splint-making, clinical demonstrations, and didactic lectures.

In the selection of students, the sub-section of Plastic and Oral Surgery first considered a group of surgeons, commanding excellent technic, but lacking in the necessary special refinements. Secondly, the members of the dental profession, many having medical degrees, who have concentrated their studies upon peridental tissues, the jaw bones, and structures of the mouth, and consequently familiar with the special details of the treatment. The correlation of the technic so as to enable the individual surgeon to command the combined knowledge can well be accomplished in these courses.

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[*] This description of the activities of the Section of Surgery of the Head, in the Surgeon-General's office, has been sent by the Surgeon-General to several of the medical journals of the country.

In a like manner, the successful neurological surgeon must, in addition to his general surgical training, have some knowledge of neurology and be trained in the special technic of surgery of the nervous system. The imparting of this special training could best be accomplished by similar schools. With the assistance of the leading members of the profession throughout the country, a list of candidates for these schools has been compiled. These candidates, in groups of twenty-five, are assigned to the schools for a period of intensive fundamental training. When this course is completed, it is planned to give the more competent surgeons an opportunity to continue studies in the various clinical centers of the country. Selected groups of these officers, well grounded in the fundamentals, can later be more specially qualified through a course of clinical instruction at the front.

In this manner the important period of preparation, so necessary for the accomplishment of rapid expansion of all branches of the service, will be most wisely used.

When the troops are engaged and many beds of the various hospitals are occupied by soldiers with injuries of the head, assignment of these surgeons who have had special training to assume the responsibility of these cases should result in the utmost efficiency. In the unit for Plastic and Oral Surgery, a general surgeon will have associated with him a dental oral surgeon, who, having gone through a course of intensive training, will be fitted to obtain the very best results through their correlated skill. Likewise, the officer of the sub-section of Brain Surgery, necessarily somewhat divorced from the competent neurologist, will have keen judgment and undertake with clearness his responsibility.

The fact is evident that it is not the intention of the Surgeon-General to make special surgeons by means of a short course of instruction, but add the necessary special knowledge to the equipment of surgeons. This special knowledge will not interfere with the general usefulness of the surgeon in the performance of any duty which may fall upon him as a member of the Military Medical Corps.

HOSPITAL SHIP.—The steamship *Prince Arthur*, for many years plying between Boston and Yarmouth, N. S., has been taken by the British Government and converted into a hospital ship for use in the war zone. Its sister ship, the *Prince George*, has been engaged in hospital service for several months.

RÉSUMÉ OF COMMUNICABLE DISEASES IN MASSACHUSETTS FOR SEPTEMBER, 1917.

A TOTAL of 3005 cases of communicable diseases was reported for September, a decrease as compared with 3167 in August of the current year and 3147 in September, 1916.

This decrease is deceptive in the comparison with September, 1916, for 623 cases of poliomyelitis were reported for that month, whereas but 16 cases were reported for September of this year.

Diphtheria, scarlet fever and measles all show an increase, diphtheria especially, which indicates the necessity for early medical attention, prompt action in the use of antitoxin for treatment and the immunization of non-immunes who have been in contact with a case of diphtheria.

Anthrax.—Six cases of anthrax were reported from four communities. Five of the cases handled hides in the beam house or soak room of a leather factory, and the hides from which the infection was received were from China. The remaining case handled hides from Argentina, South America, at a railroad freight office. These cases were infected by 4 separate lots of hides, 2 of the cases receiving their infection from the same source.

Epidemic Cerebrospinal Meningitis.—There were but 9 cases of this disease reported for the month, a decrease as compared with 19 cases in August.

Lobar Pneumonia.—Lobar pneumonia was made reportable in May of the current year. The reports which have been received show that it reached its lowest prevalence in August, but is now on the increase throughout the State, as will be seen by the following distribution of cases: May, 360; June, 277; July, 80; August, 57; and September, 80.

Poliomyelitis.—There were 16 cases reported, a marked falling off compared with the 39 cases reported in August.

Smallpox.—One case of smallpox was reported from Winchendon. The source of infection was not found.

Typhoid Fever.—Two hundred and sixty-four cases of typhoid fever were reported, a decrease of 105 cases when compared with 369 cases reported for September, 1916.

Typhoid Carriers.—Two typhoid carriers were located during September.

One of these had typhoid in April of this year and his father had typhoid in September. Typhoid bacilli were found in a specimen of feces for the first case—the carrier.

The second carrier conducted a small boarding house, and a history of the boarders shows that she apparently has been responsible for 5 cases of typhoid since August, 1916. The carrier denied ever having had typhoid fever, but the laboratory result showed an atypical Widal test, and typhoid bacilli were found in a specimen of feces.

Diseases on the Premises of Milk Handlers.—In 4 instances during the month, communicable diseases were reported on the premises of milk handlers. Typhoid fever was reported in 3 cases, one being a driver on a milk team and the other 2 being individuals on milk-producing farms. A case of diphtheria occurred on the other farm. Fortunately, no secondary cases are known to have resulted from these cases.

EPIDEMICS AND OUTBREAKS.

Typhoid Fever in Tewksbury State Infirmary.—An outbreak of 54 cases of typhoid fever occurred during the last two weeks of September, and 2 cases occurred on October 2.

The explosive character of the outbreak indicates it to be due to infected food, in all probability, as all of the cases ate their meals or worked in one dining-room.

The first seven cases reported were nurses or attendants, and of the 56 cases, 49 were physicians, nurses or attendants, and 7 were inmates.

Immediate investigation ruled out the water supply, and as the milk supply was common to the whole institution and pasteurized, it was also ruled out.

The cream for the dining-room where the outbreak occurred was found to be unpasteurized and to come from three farms. Also, one of the nurses took milk from an outside farm. Inquiry at these four farms disclosed no new employee, and all gave a negative Widal test.

Up to the time of going to press, a waitress and a nurse have been found with atypical Widal reactions and are under suspicion. As yet, typhoid bacilli have not been demonstrated in a specimen of feces.

Great difficulty has been encountered by institutions in attempting to give the typhoid prophylactic to all attendants and employees as they invariably threaten to leave; but now once again the fact has been shown that the occasional loss of an employee due to refusal to take the prophylactic is better than to lose a large number by a typhoid outbreak.

Typhoid Fever in Gardner.—Following the epidemic of typhoid fever in Gardner in August, when 54 cases were reported, 9 cases were reported this month. Six of these cases were found to be secondary cases in contact with patients of the August epidemic.

Diphtheria in Fitchburg.—In Fitchburg an interesting condition was found on questioning a family as to where the 2 cases in their family may have "caught" the sickness. They replied that a neighboring house had several cases of sore throat. Clinical symptoms and culturing proved the latter to be cases of diphtheria, although no physician had been called.

Diphtheria in Malden.—A school outbreak of diphtheria was prevented in Malden. Two cases were reported in the same schoolroom. On the following day cultures were taken from all the pupils in the room, and three of the fifty swabs were positive. A second room was cultured and six positive cultures obtained from the 62 swabs taken.

Since the finding of these positive sources of spread by culturing, only two new cases were reported the next ten days.

The origin of the outbreak was apparently through children in the same family who were ill before the opening of school.

Diphtheria in Erving.—A small outbreak of 12 cases was reported from Erving. Of these, 10 were in the same school. Culturing of 142 pupils were all negative.

Diphtheria in Melrose.—There were 20 cases of diphtheria reported during August, and when school started an increase in cases occurred. Twenty-one cases were reported in September. The prompt culturing by school physicians disclosed several carriers, including nasal carriers.

Dysentery.—From September 11 to 30, 57 cases of bacillary dysentery were reported from the Medfield State Hospital, only 2 of the cases being employees. The disease apparently originated among the inmates.

RARE DISEASES.

Actinomycosis was reported from Boston, 1.

Anterior Poliomyelitis was reported from Cambridge, 1; Fall River, 2; Greenfield, 1; Haverhill, 3; Lowell, 1; Malden, 1; Merrimac, 1; Quincy, 1; Reading, 1; Revere, 1; Somerville, 2; and Whitman, 1.

Anthrax was reported from Berlin, 1; Hudson, 1; Peabody, 1; Winchester, 1; and Woburn, 2.

Cerebrospinal Meningitis was reported from Boston, 1; Brookline, 1; Cambridge, 1; Chelsea, 1; Lynn, 1; Lowell, 2; Northampton, 1; and Salem, 1.

Dog-bite was reported from Canton, 1; and West Boylston, 1.

Dysentery was reported from Boston, 1; Braintree, 1; Acushnet, 1; Greenfield, 2; Lawrence, 6; Medfield, 57; and Westboro, 5.

Hookworm was reported from Boston, 1.

Malaria was reported from Boston, 4; Brookline, 1; Dedham, 2; Haverhill, 2; Newton, 2; and Worcester, 1.

Pellagra was reported from Boston, 1; Tewksbury, 1; and Northampton, 1.

Septic Sore Throat was reported from Ayer, 1; Dedham, 1; Haverhill, 1; Lowell, 1; Lynn, 1; New Bedford, 1; Warwick, 1; Webster, 1; and Wendell, 2.

Smallpox was reported from Winchendon, 1.

Trachoma was reported from Boston, 1; Lawrence, 2; Malden, 1; and Worcester, 1.

NOTICE.

The Harvey Society.—The second lecture of the series will be held at the New York Academy of Medicine, 17 West Forty-Third Street, on Saturday evening, November 10, 1917, at 8.30 p.m., by Dr. Carl L. Alsberg, U. S. Department of Agriculture. Subject, "Current Food Problems."

SOCIETY NOTICES.

New York and New England Association Railway Surgeons.—The New York and New England Association of Railway Surgeons will hold its twenty-seventh annual session at the Hotel McAlpin, Broadway and 34th Street, New York City, on November 8, 1917, under the presidency of Dr. H. G. Stetson of Greenfield, Mass.

H. G Stetson, *President.*
George Chaffee, *Corresponding Secretary.*

Bristol South District Medical Society.—Meeting at rooms of Chamber of Commerce, Fall River, Thursday, November 8, at 5 p.m. Dr. Daniel F. Jones of Boston will speak on "Personal Experiences at the Front, in France."

A. J. Abbe, *Secretary.*

RECENT DEATHS.

Silas Dean Presbrey, M.D., ex-president of the Massachusetts Medical Society, died at his home in Taunton, October 23, 1917, of angina pectoris, aged 79 years.

Henry Julius Cohen, M.D., of New York City, died in that city recently, following an operation for appendicitis. Dr. Cohen was thirty years old and was in charge of the eye clinics of the Jewish and Samaritan Hospitals in Brooklyn. He is survived by his widow and a daughter.

Linnaeus Victor Gibbs, M.D., a retired Fellow of the Massachusetts Medical Society, died at Huntington, his home, October 17, 1917, aged 76 years. He was a graduate of the University of Vermont School of Medicine in 1880, and joined the Massachusetts Medical Society from Worthington in 1886.

Pitt H. Jones, M.D., of Springfield, Mass., died suddenly in that city October 17. Dr. Jones graduated from the College of the City of New York in 1883 and had been in practice in Springfield ever since. He was interested in politics and had served two years in the House of Representatives. He was City Treasurer at the time of his death.

Silas Pinckney Holbrook, M.D., a retired Fellow of the Massachusetts Medical Society, died at Farnumsville, October 2, 1917, aged 79 years. He was a graduate of the University of Pennsylvania School of Medicine in 1862, and joined the Massachusetts Medical Society and settled in practice in East Douglas, Mass., in that year. There he lived and practised, being a councilor from the Worcester District Medical Society for many years.

Joseph Lewandowski, M.D., of Boston, died at his home at 406 Marlboro Street, on October 25. Dr. Lewandowski was educated at Cracow University, Austria, and afterward studied in Vienna and Paris. He practised in Boston for seventeen years and devoted considerable time to delivering lectures to Polish people in Massachusetts cities and towns. He made a specialty of tuberculosis and hygiene, and his work along these lines became widely known. He is survived by his widow.

Edward Manning Brown, M.D., died at the Springfield Hospital, October 22, 1917. He was born in Springfield, February 25, 1872, the son of Timothy M. and Elizabeth Chapman Brown, was educated at the Sheffield Scientific School of Yale and at the College of Physicians and Surgeons, Columbia University, where he took his M.D. in 1898. He was a Fellow of the Massachusetts Medical Society. He is survived by two children, his wife, Elizabeth Pettinger Brown, having died in 1907.

Sarah F. Norris, M.D., a retired physician, died at her home in Hyde Park, on October 8. Dr. Norris was born in Plymouth, N. H. She received her education and medical degree in Boston. Under the auspices of the Congregational Board of Foreign Missions, she went to Western India and worked with great faithfulness for many years among the poorer classes of Bombay. In 1905, Dr. Norris returned to America and settled in Hyde Park where she lived until the time of her death. She is survived by two sisters.

Mary Darrach, M.D., founder of the Darrach Home for Crippled Children in New York City, died at Atlantic City, N. J., on October 25. Dr. Darrach was the daughter of Dr. Marshall Darrach of Newark, an inventor and manufacturer of devices for the use of crippled persons. She taught for many years in schools for crippled children, and later studied medicine at the Women's College. In 1896 she founded a home where crippled children could live until able to earn their own living. She was also interested in other charitable work and was a member of the Children's Aid Society of New York City.

MARRIAGE.

Dr. Stanley B. Weld of Winchester, Mass., was married, on October 25, to Miss Sara Frances Felber of Boston, daughter of Mr. and Mrs. Gustave A. Felber. Dr. Weld was graduated from Harvard Medical School in 1916. They will reside in Hartford, Connecticut.

APPOINTMENTS.

Harvard Medical School. Dr. Edward Wyllys Taylor has been appointed professor of neurology.

Harvard Dental School. Dr. Percy R. Howe has been appointed professor of dental research.

Northwestern University Medical School. The following appointments have been made for the year 1917-18: Dr. Frederick G. Harris, professor of dermatology and syphilology; Dr. Joseph Zeisler, professor emeritus of dermatology; Dr. Frank C. Becht, professor of pharmacology; Dr. John Ridlon, honorary professor of orthopedic surgery; Dr. John L. Porter, professor of orthopedic surgery; Dr. Herbert A. Potts, professor of oral surgery; Dr. Frank E. Simpson, adjunct clinical professor of dermatology; Dr. Charles P. Caldwell, adjunct clinical professor of medicine; and Dr. Edward L. Moorhead, adjunct clinical professor of surgery.

Dr. B. Frank Knause, of Brooklyn, N. Y., has been appointed deputy commissioner and sanitary superintendent of that city.